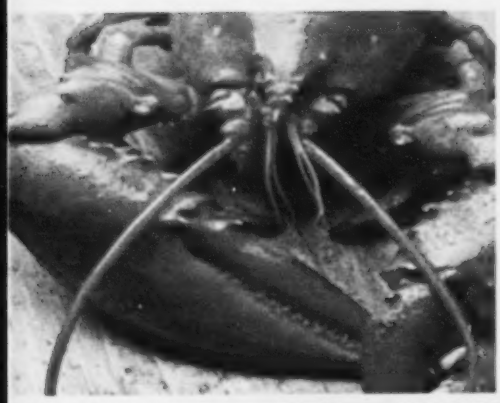

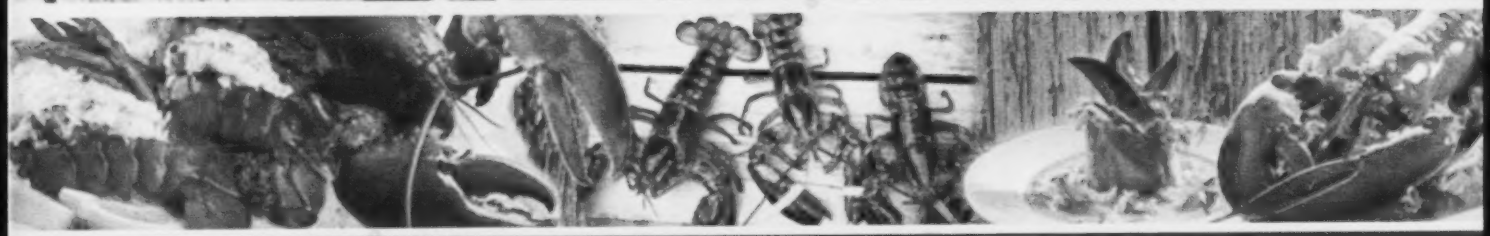

# Independent Review of the Prince Edward Island Lobster Industry

Prepared for: Province of PEI

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# 1.0 EXECUTIVE SUMMARY

During the period June 2013 to September 2013 MRSB Consulting Services in conjunction with Colin Younker, former Auditor General, was engaged to conduct an independent review of the PEI lobster industry to address how shore prices for PEI landed lobster is established, whether the 2013 price was realistic, why the shore price may differ by province, season, and market effects, and to provide a recommended mechanism for price setting which considers various impacting factors and timing.

The methodology included an extensive literature review, and collection and analysis of data from the PEI Department of Fisheries, Aquaculture and Rural Development, Fisheries and Oceans Canada (DFO), Statistics Canada, International Trade, other Provincial governments, and the Lobster Council of Canada. An extensive interview process was also conducted where 30 key stakeholders from the industry (fishers, buyers, processors, brokers, and industry associations) discussed current issues and potential solutions and provided information on the industry. Five years of financial information was requested from various stakeholders in the industry including fishers, buyers, processors, and brokers/traders. During the course of the study reasonable cooperation was received from all stakeholders and financial information was provided by some buyers, processors, and brokers/traders.

## Key Findings

### Establishment of Shore Price

In the various interviews we conducted, at every step in the supply chain, a number of factors were indicated as impacting shore price such as economic market conditions, exchange rates, and product remaining in inventory, however, based on our interviews conducted it appears there is informal talking about price and factors that will impact but we found no formal process is being used to establish shore price. This leads to frustration throughout the supply chain from fishers, who set traps without knowing a price, to brokers/traders at the seafood shows with no price established that they can use to negotiate with their customers.

### 2013 Shore Price

Shore price in PEI has fluctuated between 2008 and 2013 with a low of $3.00 in weighted average price in 2013 (spring and fall) and a high of $4.60 in 2008 (spring and fall). There are a number of factors that impacted the 2013 shore price including:

- Economic market conditions - between 2008 and 2012 lobster landings in Canada increased by 22%,
- Exchange rates - a CAD$4.00 lobster cost US importers $2.57 in 2002. This increased to $3.77 in 2008 and further increased to $3.91 in 2013,
- A decline in daily processing capacity in excess of 100,000 pounds since 2011,
- A situation where there was more supply than buyers could handle with daily boat quotas imposed,
- Overproduction of popsicle packs in 2012 occurred which resulted in excess inventory which signaled to the market place that there was an oversupply and price declined,
- Access to credit continually tightened, and

- Expansion in Europe was restrained by exchange rates (decline of 13% from 2008 to 2013.

Although the price may not be considered reasonable by some in the industry, based on the above factors, and on no other evidence provided to the contrary, the 2013 price was realistic.

### Price Differentials

The average shore price for lobster varies by province due to factors such as:

- Canners and markets are priced differently. Approximately 53% of the lobster landed in PEI during the 2013 season was canner lobster.
- The number of licensed lobster fishers in the water in Atlantic Canada varies significantly throughout the year with a low of 700-800 in August through October and a high of over 8,000 in the month of May.
- Live and processed lobsters have distinct markets and different pricing structures. When comparisons are made to the price of lobster in PEI and in Nova Scotia it is important to recognize that 92% [2012] of landed PEI lobster are processed and in Nova Scotia over 80% of exported lobster is to a live market.

### Flow from Shore to Market

Lobster passes through a number of hands from shore to market (fishers, buyers, processors, brokers/traders, importers/wholesale distributors, and restaurants or retail stores. Each step adds to the cost to the end consumer as was identified in our review of financial information for the 2008 to 2012 period and discussion with stakeholders in the industry. Two significant items were noted during our review:

- The average net margin for commissioned buyers was 1%.
- For processors the average net margin was negative 1%.

### Significant Industry Statistics

Landings between 2008 and 2012 in North America have shown a significant increase: PEI (increased by 5.4 million pounds or 25%); NB (increased by 8 million pounds or 40%) and Maine (increased by 53.4 million pounds or 76%). Approximately 10% of the lobster landed in North America is landed in PEI.

The export value of Canadian lobster products grew 18% from 2008 to 2012 while the quantity exported increased by 35%. The US is still the most significant importer of Canadian lobster at 81% by value.

In 2012, 92% of PEI lobster was processed and 8% went to the live market. Thirty-four percent (34%) of PEI lobster was processed off-Island while 58% was processed in PEI. Fifteen million (15 million) pounds of lobster were imported into PEI for processing in 2012.

PEI fishers represent approximately 13% of the over 9,000 Canadian lobster fishers and 9% of over 13,000 North American fishers.

## Recommendations

The 2013 lobster season was not an easy one for stakeholders in the industry. At the start of the spring season tensions were high between fishers and processors and the distrust among parties in the industry accelerated. What was evident from our discussions with stakeholders in the industry is that if nothing changes the industry will not move forward. We also heard a desire from industry in all facets to achieve better results. A clear path forward will be essential if industry at all levels is to be successful. While some of the recommendations listed below can be implemented in PEI alone, others will require Maritime cooperation.

Based on the interviews conducted, and the data collected and analysed, recommendations are made in the following areas:

**Price Setting** - A price setting mechanism that is transparent, legally binding, and Maritime wide should be established. It must consider factors such as cost of production for fishers, processors, and shippers along with market intelligence.

**Live Market Assessment** - A robust assessment of the durability of PEI landed lobster as a live product for export markets considering all relevant factors should be completed. An assessment of market potential considering existing competition should also be completed.

**Support for Increased Holding Capacity** - Live holding facilities should not be supported by government until a feasibility study and market research is completed by individuals or organizations seeking assistance.

**Marketing** - A plan for marketing of Canadian lobster should be developed and implemented within a specified timeframe by the Lobster Council of Canada for the Canadian lobster industry, utilizing a levy system where all stakeholders are required to contribute towards marketing for the industry.

**Quality** - Quality standards and quality control should be developed for all aspects of the lobster industry and penalties implemented for product not meeting the minimum standards.

**Price Stability Program** - The Province should review the Agri-Stability Program as to its applicability to the lobster industry and, if so, enter into negotiations with the Federal and Provincial governments.

**Workforce** - Processors should be supported in efforts to advocate for exemption from specific changes to the Temporary Foreign Worker Program.

**Product Innovation** - Government assistance should be provided in the area of new product development and innovation in the industry.

**Information Tracking and Sharing** - Collection, analysis and sharing of credible information on a timely basis with stakeholders in the industry should increase the understanding of the impacts that various factors have on the industry. Industry and government need to identify the information that is required for making informed decisions to benefit the industry. Decisions should be made on which organizations are responsible for the collection and analysis of identified data. A plan for dissemination of analysed data to appropriate stakeholders, depending on their needs, should be developed.

**Cooperation and Leadership** - Strong cooperation and leadership will be required from all stakeholder groups in the industry.

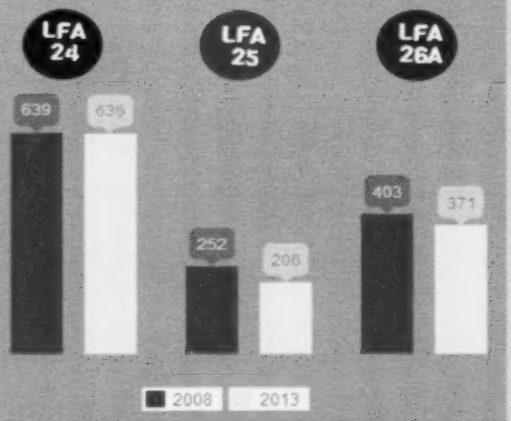
**2008-2013**

**Active Primary Processors**

**8**

**Decline in Processing Capacity**

Daily processing capacity on PEI is 315,000 to 385,000 lbs. depending on product mix. There is one live shipper on PEI. Since 2008 daily processing capacity has decreased in excess of 100,000 pounds.




## Fish Harvesters

There are three lobster fishing areas and two fishing seasons in PEI. From 2008 to 2013 the number of lobster licensed fish harvesters declined by 79. The federal government contributed 10 million in funding to reduce licenses.

**2008-2013**

**Active Licensed Buyers**

**39**

**31**

**Decline in Active Licensed Buyers**

# TRENDS & PEI'S CONTEXT IN THE NORTH AMERICAN LOBSTER INDUSTRY

**9%**

**Of North American Lobster Licenses in 2012**

**10%**

**Of North American Landings in 2012 by Volume**

**34%**

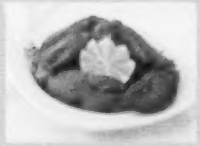
**Of Landings (volume) Processed Off-Island**

Approximately 34% of 2012 landed PEI lobster was processed in NB.

**8%**

**Live Market Domestic Exports**

Mainly shipped through processors to primarily domestic markets.

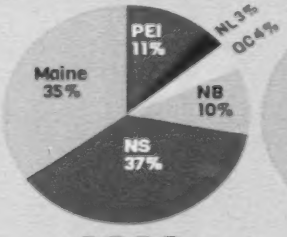


**58%**

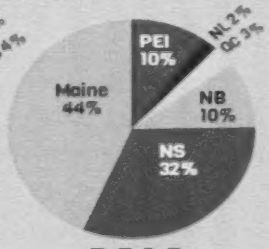
**Of Landings Processed on PEI**

Approximately 58% of PEI landed lobster is processed in PEI plants.

**North American Landings**




2008




2012

**Landings**

**Between 2008 and 2012:**

North American landings increased by 81 M lbs. or 41% to 281.5 M lbs.

Canadian landings increased by 28 M lbs. or 21%

Maine landings increased by 53.4 M lbs. or 76%

PEI landings increased by 5.4 M lbs. or 25%

# 2.0 UNDERSTANDING PEI'S CONTEXT IN THE NORTH AMERICAN LOBSTER INDUSTRY

## 2.1 Lobster Fishers

There are over 1,200 licensed lobster fishers in Prince Edward Island (PEI), [Appendix 11: Figure 1] fishing in 3 lobster fishing areas: LFA 24, LFA 26A, and LFA 25. LFA 25 is shared with New Brunswick (NB) and Nova Scotia (NS) fishers and LFA 26A borders NS fishing grounds. PEI fishers represent approximately 13% of the over 9,000 Canadian fishers and 9% of over 13,000 North American fishers [Appendix II: Figure 2].

Fishers in PEI are organized under 6 local fishermen's associations, which fall under the umbrella of the PEI Fishermen's Association. Lobster fishing occurs in 41 ports surrounding PEI. In PEI lobster fishers are permitted to fish in LFAs 24 and 26A during the period April 30th to June 30th and during the period August 9th to October 10th in LFA 25. Dates may vary slightly by year.

Since 2008 there has been a reduction in licensed fishers in LFA 26A (32 licenses) and LFA 25 (46 licenses) [Appendix II: Figure 1]. A portion of the reduction of licenses, 31 in LFA 26A and 34 in LFA 25, is a result of lobster sustainability and rationalization programs which received approximately $10 million in contributions from the Federal Government.

The fishing season varies by LFA with some locations like NS, NB and Maine having year round fisheries in some areas. The number of licensed lobster fishers in the water in Atlantic Canada varies significantly throughout the year with a low of 700-800 in August through October and a high of over 8,000 in the month of May [Appendix II: Figure 3]. In Maine the lobster fishery, although year round, has the highest landings in the late June to December period.

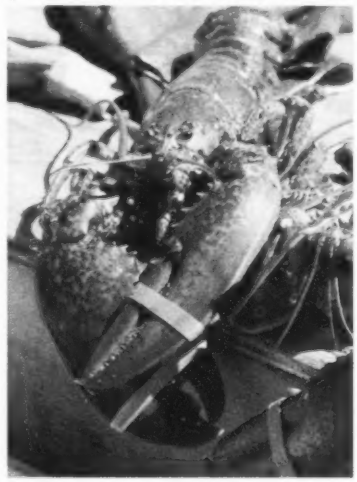
## 2.2 Landings

Landings in PEI increased by 25% (5.4 million pounds) between 2008 and 2012, while North American wide the increase in landings has been 41% (or 81 million pounds) for the same time period. Maine was the biggest contributor with an increase of 76% (53.4 million pounds) followed by NB at 40% (8 million pounds). Total landings in Canada in 2012 were 158.2 million pounds while Maine landed 123.3 million pounds [Appendix II: Figure 4]. Spring season landings in PEI have historically represented approximately 84% of the PEI spring and fall catch. The average catch per fisher in PEI is 22,000 pounds (2012) while other jurisdictions like Maine and NS have higher average catches exceeding 28,000 pounds [Appendix II: Figure 5].

## 2.3 Buyers

There were 31 active licensed buyers in PEI in 2013. A licensed buyer may have more than 1 buying license as they are issued by port. There has been a 21% decline in buyers since 2008 when there were 39 active buyers. [Appendix II: Figure 6]. In 2013, approximately 80% of the lobster landed on PEI was purchased and sold by 35% (11) of the buyers. Approximately 55% (17) of the active licensed buyers purchased and sold less than 500,000 pounds of lobster each in 2013.

A buyer's license is required in each of the Eastern Canadian provinces, however the criteria for each province differs:



- Buyers in PEI require a business permit, legal tender weigh scale, and facilities to store and transport fish. In 2008 the PEI government relaxed conditions to allow applications for lobster buyer licenses at any time during the year with an expected 3 day turn around.
- Buyers in NS require a business permit, development of a live lobster protocol, ownership of an approved holding facility for a minimum of 2,000 pounds, and ownership of an approved handling facility.
- Buyers in NB follow similar regulations to PEI.
- Buyers in NL require a business permit and in NL there is a moratorium on fish buying licenses, set at 20.
- Buyers in QC require a business permit, a certified truck, and security or letter of guarantee of $50,000. In the Magdalen Islands, which land approximately 70% of Quebec's lobster, they have a moratorium on fish buying licenses, set at 6.

Of note, the conditions on buying licenses in most other provinces appear to be more restrictive than those in PEI.

## 2.4 Processors

Since 2008 the number of active primary lobster processors in PEI has remained at 8 [Appendix II: Figure 7] with the closure of 2 plants (1 prior to the 2011 season and another prior to the 2013 season) and 2 others becoming active, however the processing capacity on a daily basis has declined in excess of 100,000 pounds. A moratorium on lobster processing licenses currently exists with the number of licenses restricted to 19 and the requirement that licences issued up to that number utilize existing idle plants. **Current daily processing capacity on PEI ranges from 315,000 pounds to 385,000 pounds depending on the product mix. Average daily landings during the 2013 spring season were 480,000 pounds. An estimated 2.1 million pounds went to the live market which on a daily basis (spring and fall 120 days) would divert approximately 17,000 pounds per day.**

Given the average daily landings in the spring season, there is a need for PEI lobster to be shipped off-Island for processing during these months. In 2012 approximately 34%[1] (9.2 million pounds) of landed PEI lobster was shipped off-Island for processing. Processing plants on PEI also purchase lobster for processing from off-Island sources which assists in extending the processing period and contributes to sustainability of the plants. In 2012 approximately 15.2 million pounds[2] were imported for processing.

There are 40 processing licenses in NB that include lobster, however in 2012 only 22 of those were active. There are 19 processing plants in Quebec. In Maine the number of processing plants has more than tripled, from 5 in 2010 to 16 in 2012. It is estimated that 80% of Maine's landings are processed, and until 2012 around 60% to 70% of landings were shipped to Canada for processing.[3] Maine's capacity for processing prior to 2013 was around 10 to 12 million pounds annually.

## 2.5 Products

The lobster landed in PEI is used mainly for processed product. Ninety-two percent (92%)[4] of all landed product (canner and market sized) in 2012 was processed. Approximately 8% of PEI landed lobster enters the live market, mainly through processors. Approximately 58% of PEI landed product is processed in PEI processing plants, with 34% leaving the Island for processing, mainly in NB. In discussion with PEI processors, processed product is being shipped into the US, Europe, and Asia. There are also domestic sales; however, we were unable to determine a source of information for processed and live product domestically as it is not tracked by Statistics Canada. PEI processors have indicated the product mix includes popsicles, blanched raw whole lobster, tails, whole cooks, and meat packs.

## 2.6 Pricing

The average price during the spring 2013 season was $2.79 for canners and $3.34 for markets, while the fall 2013 season average price was $2.55 for canners and $2.80 for markets. This is a decline from the average price per pound of $4.23 for canners and $4.67 for markets in the spring of 2012. PEI is not alone in its decline in price in the 2013 year; other Maritime Provinces also experienced a decrease in price in 2013. The fall 2012 price

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[1] Source: PEI Department of Fisheries, Aquaculture and Rural Development.

[2] Source: PEI Department of Fisheries, Aquaculture and Rural Development.

[3] Source: "The Associated press via The Globe and Mail", *Maine lobster industry reaches a boil*, July 5, 2013 http://www.theglobeandmail.com/report-on-business/international-business/us-business/maine-lobster-industry-reaches-a-boil/article13024305/

[4] Source: PEI Department of Fisheries, Aquaculture and Rural Development.

was $2.50 for canners and $2.75 for markets, so a slight increase in pricing took place during the fall 2013 season.

It has been typical in the last 5 years examined to see prices drop in May. As well PEI generally has the lowest shore price of the Maritime Provinces, but it is important to note that NS is mainly a live market lobster industry and the average price in NB includes Grand Manan, which is a live market lobster industry. NL and the Magdalen Islands both have pricing mechanisms to establish their shore price and both locations typically service a live market.

## 2.7 Storage Capacity

PEI has approximately over 4 million pounds of cold storage capacity distributed amongst processing plants and 20 million pounds of cold storage capacity shared with products other than seafood.

Based on interviews there is approximately 1.6 million pounds of live holding capacity on PEI, with approximately 55% held by the processing sector at various plants.

# Where Do PEI Lobsters Go From the Trap?

**PEI LOBSTER**

27.3 million lbs. landed in 2012

**BUYERS**

**92% Volume Processed**

**8% Volume Live Market**

**34% shipped off-Island for processing (mainly NB)**

**58% processed on PEI**

**Product Mix for Export outside Canada (by value)**

**(Processed in NB, but not specific to PEI product)**

Popsicle packs - 6%
Green tails & whole cooked - 50%
Live - 15%
Meat - 27%

Markets (Value)
92% US - Mainly green tails, whole cooks and meat
3% Japan - Popsicles, whole cooks
1% France - Live or popsicles

**Product Mix for Export outside Canada (by value)**

**(Processed on PEI)**

Popsicle packs - 10%
Green tails & whole cooked - 52%
Live - 9%
Meat - 29%

Markets (Value)
85% US - Mainly green tails, whole cooks and meat
3% Germany - Mainly popsicles
2% Sweden - Popsicles
2% Japan - Popsicles, whole cooks
2% China - Mainly live

# 3.0 WHERE DO PEI LOBSTERS GO FROM THE TRAP?

## 3.1 Supply Chain

When a PEI lobster is caught in the trap it may take several routes from the wharf. In PEI the custody of the lobster is transferred from the fisher to a licensed buyer at the wharf. It is important to note that lobster also gets shipped into PEI from other provinces for export to the live market and that purchasing raw product from Maine is important to the sustainability of several of PEI's processing plants to extend their processing period. Estimates provided by the PEI Department of Fisheries, Aquaculture and Rural Development indicate that 15.2 million pounds of lobster was imported into PEI for processing in 2012. Lobster is also imported to PEI for distribution in the live market; however, data pertaining to quantity is not available.

Once the buyer takes custody of the lobster it makes its way to a processor on PEI or NB by truck. Eight percent (8%) of PEI lobsters are sold live through the processors, retail buyers and a live shipper primarily into domestic markets.

The majority of processors work through brokers/traders to get their product into food service and retail in domestic markets. A number of brokers/traders also work with importers or distributers to get the product to the end consumer.

## 3.2 Domestic Markets

Domestic movement of processed and live lobster product is not available as it is not collected by Statistics Canada.

## 3.3 Export Markets

Export markets are very important for lobster products. While domestic consumption of lobster is strong on the East Coast it is important to note the Canadian population of 34.88 million in comparison to the population of potential export markets: US 313.9 million, Europe 739.2 million, Japan 127.6 million, and China 1.351 billion.

Export data was received by Statistics Canada, International Trade Division for the 2008 to 2012 years by product code, province, and country of export.

When goods are imported to or exported from Canada, declarations must be filed with the Canadian Border Services Agency (CBSA) and include the description and value of the goods, their place of origin and port of clearance, and the mode of transport of the goods into or out of the country. These customs declarations are used in compiling customs-basis statistics. Import data is received from the CBSA through electronic import transaction entries. Data for Canada's exports to countries other than the US is compiled by the International Trade Division from export declarations received via the CBSA.

Since 1990, Canada and the US have exchanged import data; the import data of one partner country is used to derive the export data of the other. Canada's exports to the US are compiled using US import statistics (from the US Customs Border Protection via the US Census Bureau) and account for the majority of Canada's export trade.

In regards to the quantities, the unit of measure is published as originally reported by the importer/exporter. The description describes the product, but the quantity is the total unit of measure/weight of the entire product itself. In this case, it would be the entire contents of the package, not just the lobster meat.

It is important to note that while Statistics Canada tracks and indicates place of origin of the product, there are individuals who believe the export data is not accurate for PEI exported lobster products.

**Prince Edward Island**

In PEI's 2012 export data [Appendix II: Figure 8]:

- the largest export product category by quantity was green tails and whole cooks at 52% (52% by value),
- followed by meat at 20% by quantity (29% by value),
- popsicle packs at 12% by quantity (10% by value), and
- live at 16% by quantity (9% by value).

Eighty-five percent (85%) of the processed product (by value) was destined for the US, PEI's largest export market, 3% went to Germany, followed by 2% to each of Sweden, Japan and China. Smaller percentages were exported to several other countries [Appendix II: Figure 9].

With regards to PEI exports in the US market, the main products were green tails, whole cooks, and meat; Japan, Germany, and Sweden was mainly popsicles; China was mainly live; and France was live or popsicles [Appendix II: Figure 10]. In the US market in general (not specific to Canadian exports), tail and meat markets are more important to food service buyers. Lobster tails account for approximately 50% of US restaurant lobster sales, while 21% is live, and 26% is meat. US Retail is over 90% live product.[5]

Export sales from PEI in 2012 included live product by value at 9%, however the major shipper to live export markets from PEI indicated that a very large percentage of their lobster is sourced outside of PEI. **In 2012 approximately 2 million pounds of PEI landed lobster was sent to a live market. It is assumed based on comments received during the course of the interviews that the majority of this product was sold in domestic live markets.**

[5] From Trap to Table – A Long Term Value Strategy for the Canadian Lobster Industry; Prepared by Gardner Pinfold, Revenue Management Ltd., Market Research Associates, Seafood.com/Seafood Datasearch. October 2010

From 2008 to 2012 PEI's export value declined by 10% [Appendix II: Figure 11]. While markets like China and Hong Kong experienced significant growth, 4 of the top 10 countries for PEI exports experienced a decline. It is not possible to determine if the growth in new markets like China and Hong Kong was based on increased marketing efforts or resulted from the decline in prices.

### New Brunswick

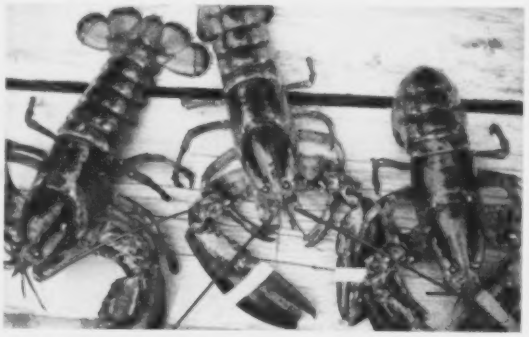
Considering that 34% (2012) of PEI lobsters leave the province in raw product form, it is important to look at NB exports (although not specific to PEI product) as the largest off-Island recipient of our raw products. In NB's 2012 export data [Appendix II: Figure 12]:

- the largest export product category by quantity was green tails and whole cooks at 40% (50% by value),
- followed by meat at 22% by quantity (27% by value),
- popsicle packs at 7% by quantity (6% by value), and
- live at 27% by quantity (15% by value).

Ninety-two percent (92%) of the processed product (by value) was destined for the US, 3% went to Japan, and 1% to France. Smaller percentages were exported to several other countries [Appendix II: Figure 13].

### Canada

The export value of Canadian lobster products grew by 18% from 2008 to 2012, achieving a value of $1.1 billion in 2012. The quantity (which includes the weight of packaging and brine) increased by 35% [Appendix II: Figure 14].



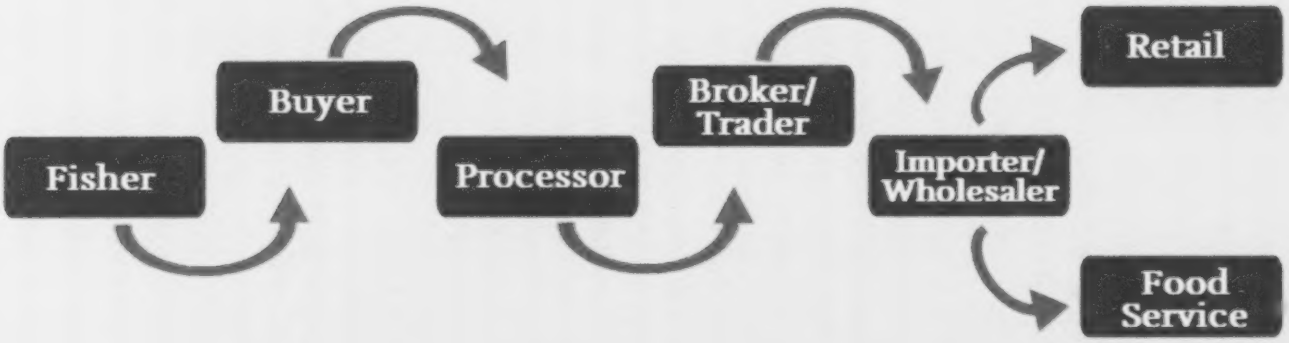
There has been tremendous growth in the China market with export value multiplying by almost 26 times to a 2012 value of $40.6 million [Appendix II: Figure 15]. The majority of this growth was achieved in the live trade. Nova Scotia experienced an increase of 3.6 million pounds and PEI shippers entered into the Chinese market with 338,000 pounds in 2012, however this is most likely not PEI landed lobster [Appendix II: Figures 16 and 17].

Hong Kong exports have increased by 284% while Germany has seen a decline of 49% [Appendix II: Figure 15]. Hong Kong's increase has been in a number of product lines including popsicles, whole cooks, live and meat, with the most significant increases based on value of green tails, whole cooks and lobster meat [Appendix II: Figure 18].

Germany's decline has been across a number of product lines including popsicles, whole cooks, live and meat, with live and meat experiencing the largest decline [Appendix II: Figure 19]. PEI did, however, experience an increase in the German market with the export of "popsicles" during this time frame.

The US continues to be the largest consumer of Canadian lobster product at 81% by value and 78% by quantity [Appendix II: Figure 20]. The quantity of product shipped to the US from Canada increased between 2008 and 2012 by 35% but only 16% in value [Appendix II: Figure 20].

# Flow from Shore Price to Market Price



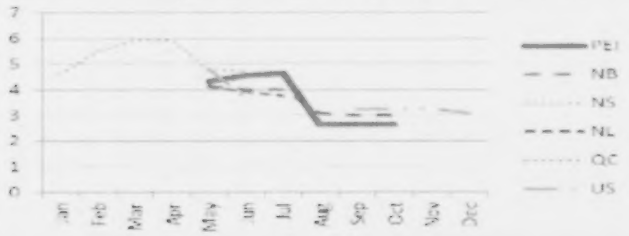

# Factors Impacting Shore Price

# Price Differentials in Shore Price

## Canners vs. Market

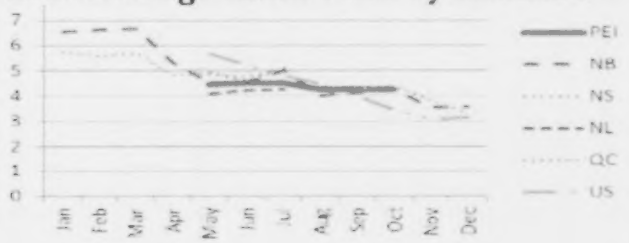
- Since 2008 price differentials between canner and market have been between $0.45 to $0.50

## 2012 Average Shore Price by Location




- NS has LFAs with year round fishing; mainly live market, min. carpace size in some areas 82.5 mm
- NB includes Grand Manan, a live market
- QC and NL have pricing mechanisms
- US year round fishery

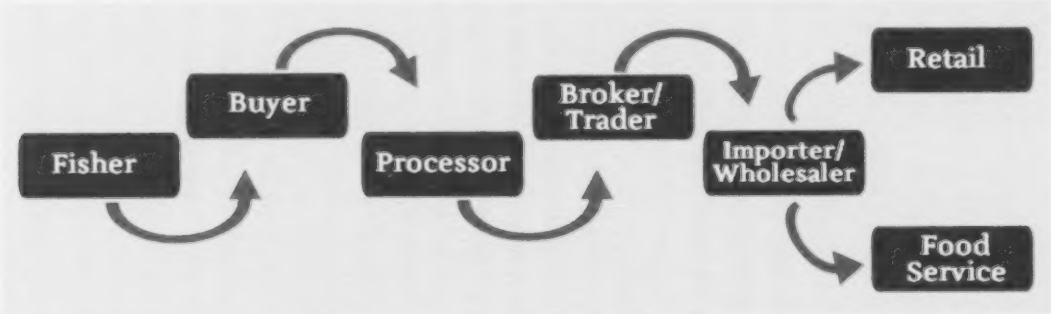
## 2008 Average Shore Price by Location



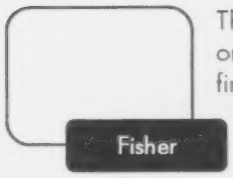
# 4.0 ESTABLISHMENT OF SHORE PRICE

## 4.1 Flow from Shore Price to Market Price

A lobster has many links in the chain of custody as it leaves the water and lands on a consumer's dinner plate either at home or in a restaurant. In the financial analysis below we include an analysis of net margin which is the percentage of revenue remaining after all operating expenses, interest, and taxes have been deducted from a company's total revenue. Net margin is a good indicator of a company's profitability and market viability. The higher the net margin, the better the company is doing at turning sales into profit. Net margins will vary from industry to industry.




### *4.1.1 Fisher*




The fisher incurs a variety of costs to trap and deliver a lobster to the buyer on the wharf. The major cost categories include fuel, wages, bait and financing costs for licenses and the boat (if they are less than 15 years in the industry). For those in the industry longer, repair costs to the boat, engine and electronics can be significant. Capital investments by fishers include a license, a boat, and an engine. Financial information was requested from several fishers, however it was not provided. Average cost information provided by the PEI Fishermen's Association and the Department of Fisheries, Aquaculture and Rural Development for 2009 reflected costs of $33,500 to $42,800 (both amounts exclusive of interest). Due to the variance and the year of the information, it was considered unusable and outdated.

Based on 2013 landings the average landings per fisher was 23,717 pounds [Appendix II: Figure 21]. Average catch per fisher has been increasing in all 3 LFAs since 2008 with the exception of 2011 where declines from the previous year in average landings were experienced in LFAs 24 and 25. An average price per pound of $3.00 for 2013 is calculated based on total landings per LFA and the average price per LFA, as reported to Department of Fisheries, Aquaculture and Rural Development [Appendix II: Figure 22]. Using this information, an average gross income per fisher is calculated as $71,000 for 2013. It should be noted that the average landings per fisher and the average price differs by LFA. From 2008 and including 2013 the average landings, depending on the LFA, have increased by 20-93%. The average gross income from lobster in 2008 ranged from $50,000 to $93,000 and in 2013 ranged from $62,000 to $81,000, depending on the LFA.

Income of the fisher in some cases can be supplemented by Employment Insurance Benefits for Fishers which provides benefit periods for a summer and a winter claim. A minimum of $3,000 in gross earnings from self-employment in fishing or 490 hours or more of labour force attachment related to fishing is required to qualify. In 2013 the yearly maximum insurable earnings amount is $47,400 which means the maximum weekly amount for 2013 would be $911.54 and maximum benefits at 55% would be $501.35. Benefits can be received for up to 26 weeks within a period of 38 weeks. If the fishing license is a partnership between 2 individuals and fishing earnings are high enough, then each partner is entitled to file for a winter and summer claim. Depending on net income, some EI benefits may have to be repaid when an income tax return is filed.[6]

### 4.1.2 *Buyer*

**Buyer**

Average net margin 2008–2012 was 1%.

**Based on financial information provided by a number of buyers licensed in PEI (representing 40% of landings sold through commissioned buyers) the average gross margin over the past 5 years (2008-2012) based on lobster was 9% and 7% in 2012. Net margin, after overhead and other expenses, based on lobster was 1% (2008-2012) and at breakeven in 2012. While general understanding is that commissioned buyers receive approximately $0.50 per pound, in our review of financial statements for the 2008-2012 period we found on average the mark up was $0.37 per pound (2008-2012) and $0.34 per pound in 2012 after adjustments and incentives.**

The buyer incurs a variety of costs from the time they take custody of the lobster from the fisher at the wharf and deliver it to a processor or shipper. The major cost categories include wages, trucks, building and equipment repairs, maintenance, insurance, telephone, fuel and supplies such as ice, bands, pallets and boxes. In addition many buyers sell products such as bait and ice to the fishers and also provide administrative services such as payroll, government remittances, employment insurance accounting, and paying fuel bills on their behalf.

The capital investment by buyers varies depending on the volumes bought. Some buyers invest in buildings, holding capacity, and trucks while others may lease buildings and trucks or utilize the trucking services of a processor.

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[6] Source: "Employment Insurance Benefits for Fishers", Service Canada. http://www.servicecanada.gc.ca/eng/ei/types/fishing.shtml#eligible

### 4.1.3 *Processor*

Average net margin 2008–2012 was negative1%.

**Processor**

**Based on financial information provided by processors (representing over $70 million in annual lobster sales), the average gross margin over the past 5 years (2008-2012) based on lobster was 10% and the same in 2012. Net margin/(loss) after overhead and other expenses based on lobster was negative 1% (2008-2012) and similar for 2012.**

According to processors we interviewed the average yield per product varies significantly: cooked meat 15-18%, tails (in shell, green) 23-25%, whole cooks 97% and soft shell or weak lobster processed into meat/tail 20-28%. There is also a need to factor in a mortality rate of approximately 3%, representing the lobsters purchased from a fisher that are not in processing condition. Since more than 1 product can be processed from a raw lobster, a common average used for overall yield is 37%.[7]

The processor has a number of input costs to turn the raw product into a finished product including wages and benefits, equipment maintenance, storage, and financing costs.

The major capital investments of processors include building, processing equipment, cold storage and freezing capacity.

### 4.1.4 *Broker/Trader*

**Broker/Trader**

Average gross margin1.5%.

The next level in the custody chain involves either a broker or a trader. Brokers tend to work on a commission basis and, based on market conditions, negotiate with both the importer/distributer and the processor on prices that result in a gross margin between 1% and 3%. Traders buy product from the processor and then resell, also hoping to achieve a 1% to 3% gross margin.

The major input costs of the broker/trader are storage, shipping, financing, insurance and selling costs.

### 4.1.5 *Importer/Wholesaler*

A mark up of 15–20% is typical.

**Importer/ Wholesaler**

Brokers or traders may not sell directly to food service or retail but sell to importers or wholesale distributors who typically add a 15-20% mark up. The importer/wholesaler then incurs the cost of distribution from storage to retailers and restaurants.

[7] From Trap to Table – A Long Term Value Strategy for the Canadian Lobster Industry; Prepared by Gardner Pinfold, Revenue Management Ltd., Market Research Associates, Seaffood.com/Seafood Datasearch. October 2010

The major input costs of the importer wholesaler include freight, shipping, storage, insurance, tariffs and selling costs.

### 4.1.6 *Food Service*

**Food Service**

Net margins range from 4–6.3%.

Food service consists of 3 main segments: restaurants (white table cloth and casual dining), casinos, and cruise lines. Chain restaurants are common in the US market, however in Europe the model is different and the majority of restaurants are all independently owned, requiring a different marketing approach. Based on 2012 data, single location full service restaurants in the US have an average net margin of 6.2% and chain restaurants in the US have an average net margin of 6.3%.[8] Darden's Restaurants Inc. 2012 financial statements revealed a 4% net margin. Darden's market share in the US in 2011 was 14.3%.[9] A common rule of thumb for restaurant margins is that the cost of product is one-third the menu price.

### 4.1.7 *Retail*

Net margins range from 2–3%.

**Retail**

Retail consists of supermarket chains and speciality seafood stores. Retail stores cost of goods as a percentage of annual sales is 74%, however the net margin for retail is significantly lower when input costs such as facilities, equipment, wages, and expired product are accounted for and is estimated at 2% to 3%.[10] It is important to note that retail in the US is predominantly a live product and not a significant destination for processed product.

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[8] Source: IBISWorld, September 2011.

[9] Source: IBISWorld, September 2011.

[10] Source: IBISWorld, May 2011.

## 4.2 Factors Impacting Shore Price

Shore price in PEI has fluctuated between 2008 and 2013 with a low of $3.00 in weighted average price in 2013 (spring and fall) and a high of $4.60 in 2008 (spring and fall). The shore prices in PEI also fluctuate by size (canner vs. market) and throughout the fishing seasons. There are a number of factors that impact this shore price including:

- Economic market conditions and exchange rates,
- Processing capacity issues,
- Competition among buyers for supply,
- Inventory levels,
- Overproduction of wrong product mix in 2012,
- Access to credit, and
- European tariffs.

Figure 1: Factors Impacting Shore Price

### *4.2.1 Economic Market Conditions and Exchange Rates*

In 2008 the US, Canada's largest export market for lobster, was hit with an economic recession. This recession also spread to Europe, impacting even more of Canada's export markets. These recessions impacted purchasing power for consumers causing consumers to retreat from restaurants and high priced goods.

**Exchange rate is the price of one currency in terms of another and has a significant impact on Canada's export products.** The US dollar (USD) has experienced a decline since 2002 [Appendix II: Figure 23]. For example, a product sold to the US for $1.00 USD in 2002 would have resulted in CAD$1.57 to Canadian exporters, while in 2012, without a price change in the US market, the Canadian exporter would have only received CAD$1.00, a decline of 57%. **A CAD$4.00 lobster cost US importers $2.57 in 2002. This increased to $3.77 in 2008 and further increased to $3.91 in 2013.**

Figure 2: Exchange Rate Differentials

| | 2002 | 2008 | 2013 |
|---|---|---|---|
| US | $1.00 | $1.00 | $1.00 |
| Can | $1.57 | $1.06 | $1.02 |
| | | | |

The Euro has experienced a decline since 2008 [Appendix II: Figure 23]. For example, a product sold to a European importer for 1 Euro in 2008 would have resulted in CAD$1.56 to Canadian exporters, while in 2012, without a price change in the European market, the Canadian exporter would have only received CAD$1.35 per pound, a decline of 13%.

Between 2008 and 2012 lobster landings in North America increased by 41% [Appendix II: Figure: 4] and in Canada by 22%. During this same time period export markets increased by 35% by quantity (including packaging) absorbing excess lobster; however, the export market grew in value by only 18%, thus reflecting a declining price per pound in the market place [Appendix II: Figure: 14].

### *4.2.2 Processing Capacity Issues*

Processing capacity issues occurred in the early parts of the 2013 spring season resulting from a number of factors including increased landings, decline in industry processing capacity, worker shortage, and product mix being produced. In May of each year the number of licensed lobster fishers in Canadian waters more than doubles from the previous month and quadruples from the first quarter. In addition, landings have been increasing on a continuous basis since at least 2008. In 2013 landings increased by 5% over 2012 [Appendix II Figure: 4]. Meanwhile processing capacity in the industry is declining. Although the number of primary lobster processors in PEI has remained stable since 2008, the closure of a large plant prior to the 2011 season and another plant prior to the 2013 season has resulted in the loss of in excess of 100,000 pounds of daily processing capacity [Appendix II: Figure 7]. In PEI for 2013 the daily processing capacity ranged from 315,000 to 380,000 pounds depending on product mix. Average daily landings in the spring season in PEI were 480,000 pounds. An estimated 2.1 million pounds went to the live market, which on a daily basis (spring and fall, 120 days) would divert approximately 17,000 pounds per day.

### *4.2.3 Competition Among Buyers for Supply*

Another factor that impacts the shore price is the competition among buyers at the wharf to fill the demand of their processors. With the increase in landings there has been ample supply to fill weekly demand and in some instances (demonstrated by buyer imposed boat quotas in 2013) there has been more supply than demand.

### 4.2.4 *Inventory Levels*

The level of inventory on hand at any point in time can impact the market price for lobster. Key stakeholders have told us that the marketplace watches the news flowing out of the Atlantic region (Canada and US) very closely, in regards to lobster supply and inventories of finished product. Although there is no formal inventory system for tracking processed lobster inventory in storage, there was informal communication from customers, brokers and importers in regards to the inventory that existed. When volumes of supply are high the marketplace knows they can force brokers and importers to provide more competitive pricing.

### 4.2.5 *Overproduction of Wrong Product Mix in 2012*

In 2011 the price of popsicles was high so a number of plants produced the product in 2012 hoping to capitalize on the good price. In addition, as plants are impacted by large landings, creating processing gluts and workforce challenges, the popsicle becomes a quicker and less labour intensive product to produce. Unfortunately in 2012 the market price for popsicles dropped significantly, forcing processors and brokers to hold the popsicles in inventory or guarantee a significant loss on the sale. **This excess product inventory signalled to the market place that there was an oversupply and, as a result, the amount they were willing to pay for the processed lobster product declined.**

### 4.2.6 *Access to Credit*

During our key informant interviews access to credit was identified as a key challenge in the industry impacting the ability to hold product and wait for a better price in the market. Processing plants are labour intensive and, therefore, have significant payroll costs to meet on a regular basis. Processing plants also typically pay for their raw product before their finished product reaches the marketplace. With the constant need for cash, processors are often forced to sell product in less than ideal market conditions.

### 4.2.7 *European Tariffs*

A Comprehensive Economic and Trade Agreement between Canada and Europe with the purpose of reducing and eliminating barriers to trade is currently in its final stages of negotiation and it is hoped that it can be in force within 2 years, which will result in decreasing tariffs over 3 to 5 years. Currently European tariffs result in duties of 6-20%, depending on the form of lobster product, making Canadian product less competitive and more price sensitive.

### 4.2.8 *Conclusion*

Although the price may not be considered reasonable by some in the industry, based on the above factors, and on no other evidence provided to the contrary, the 2013 price was realistic.

## 4.3 Price Differentials in Shore Price in the Region

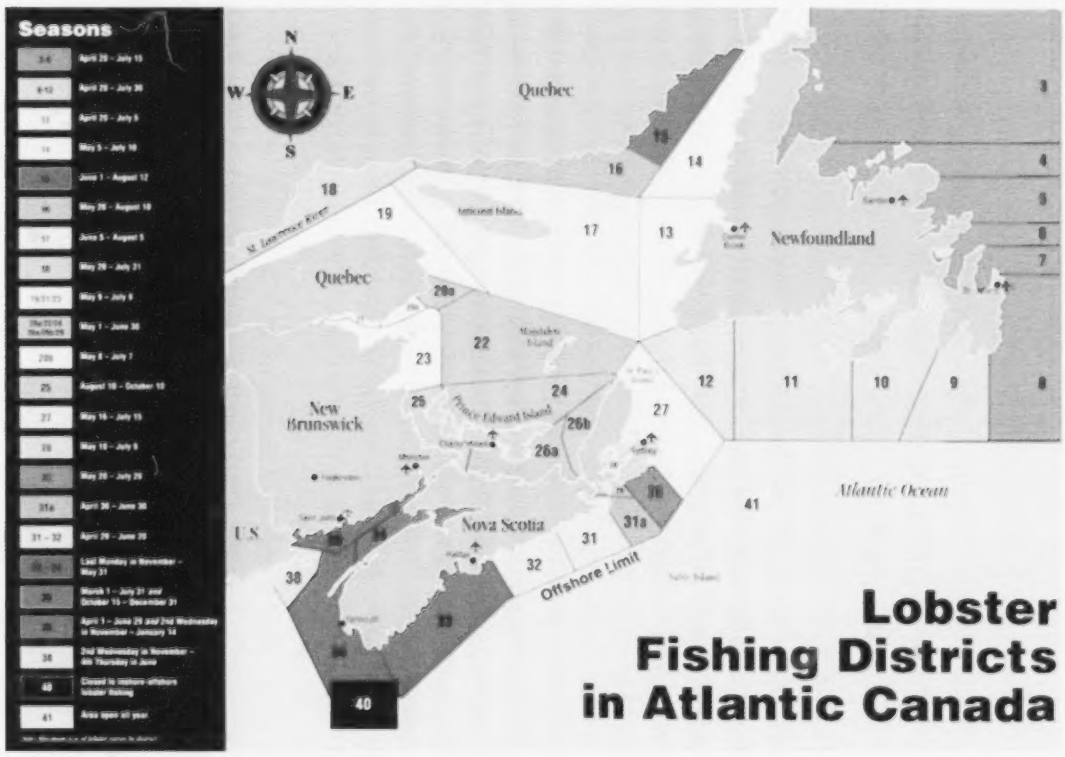
The average shore price for lobster (Homarus americanus) varies by province due to factors such as sizes, seasons, and markets. The shore price declines in May from what the price is in January to April, the canner sized lobster is priced lower than market size per pound, the fall prices decline from spring prices, and there is often a differential from province to province during the same season [Appendix II: Figures 24 and 25].

### *4.3.1 Seasons*

Five East Coast provinces and the State of Maine are the main suppliers of lobster (Homarus americanus) to the food service and retail sectors throughout the world in various processed forms and as a live product. Lobsters can be harvested year-round in Maine; however, the majority are caught between late June and December. In NS there are LFAs with seasons open most months of the year except for August and September.

NL, NB, and PEI (depending on the LFA) have seasons that are open from late April or early May to late June while QC opens in late April or early May until late July or early August. NB and PEI share an LFA that is open August to October. Two areas of NB have seasons extending from November until the end of June.

Figure 3: Seasons for Lobster Fishing in Atlantic Canada




*Source: Department of Fisheries, Aquaculture and Rural Development*

### 4.3.2 *Size*

The minimum carapace size for lobster varies throughout the region, ranging from 72 mm to 84 mm [Appendix II: Figure 26]. A lobster of 72 mm to 81 mm in carapace size is classified as a canner lobster and typically yields $0.50 less in shore price than a market size lobster. The majority of canner lobsters are processed. Lobsters over 81 mm are either processed or shipped live. For a lobster to be shipped into the US for the live market it must be a minimum of 82.5 mm. Although these same size restrictions do not apply to other export markets, it is important to note that over the past 5 years 72% of Canadian exported live lobster are shipped to the US [Appendix II: Figure: 27].

### 4.3.3 *Market*

Export data for 2008 to 2012 can demonstrate the relative influence that the live market may have on shore price for a particular area. For example, NS has a very significant live market trade, representing approximately 82% of its export value while PEI live market trade is only 9% and NB is 15% [Appendix II: Figure: 28]. **Traditionally shore prices have been higher in NS prior to the opening of the spring fishery in PEI, resulting from the fact that the lobster is going mostly to a live market and also there is less supply at that time of year as a number of the fisheries open late April or early May. Of particular note, the spring 2013 prices in NS rose to near record levels for a short time in April 2013. This was in part due to storm conditions in Atlantic Canada which essentially kept fishing vessels from going fishing. The following quotes in the Chronicle Herald from Patricia Mohr, Scotiabank's vice-president of economics and commodity market specialist, and Stewart Lamont, a lobster broker and the managing director of Tangier Lobster Co. Ltd. on the Eastern Shore who maintains an inventory of live lobster for some shippers in the region, support this correlation.**

*{"Stormy seas in March drove Atlantic Canadian lobster prices sky-high, according to Scotiabank's commodity price index released Monday.....The wholesale price at auction in Boston last month was US$9.97 per pound. That is the second-highest price recorded since the bank started tracking Atlantic Canadian lobster prices in January 1972. The record occurred in April 2007 at US$12.54 per pound....."The reason turns out to be that the weather was quite stormy in the Atlantic in March and it kept fishing vessels from going fishing, essentially," said Patricia Mohr, Scotiabank's vice-president of economics and commodity market specialist. So the supplies tightened enormously."*[11]

*"Prices have already tumbled from the dizzying heights of March's $10-a-pound shore price prompted by a hellish winter when boats that put to sea weren't bringing much lobster back to*

[11] Lobster Prices Up Sharply. Chronicle Herald, April 29, 2013.
http://thechronicleherald.ca/business/1126065-lobster-prices-up-sharply

*shore.....The market can't pay those high prices except when there are very, very few lobsters," Lamont said.*[12] }

### 4.3.4 Other Factors

Other factors impacting the costs of various stakeholders in the industry include electricity and transportation costs. For example, in 2013 the demand charge in PEI for electricity is $14.50 per KW[13] compared to $12.92 per KW[14] in NB, an advantage of $1.58 per KW for NB processors. Although all areas experience trucking costs in getting the raw product to the processor and finished product to the end consumer, PEI has a freight disadvantage since 34% of our lobster has the additional cost of being trucked across the Confederation Bridge to processors in NB. In addition, our finished product must be either air freighted or container shipped by boat from outside the province.

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[12] Lobster Prices Set to Drop as Volume Increases. Chronicle Herald. May 3, 2013. http://thechronicleherald.ca/business/1127543-lobster-prices-set-to-drop-as-volume-increases

[13] http://www.maritimeelectric.com/about_us/regulation/reg_irac_regulations_det.aspx?id=142&pagenumber=69

[14] http://www.nbpower.com/html/en/residential/rates/policies/rspn9.html

# The Path Forward

## Conclusions & Recommendations

### Price Setting Mechanism

A price setting mechanism that is transparent, legally binding and Maritime wide should be established. It must consider factors such as cost of production for fishers, processors, and shippers along with market intelligence.

### Live Market Potential

A robust assessment of the durability of PEI landed lobster as a live product for export markets considering all relevant factors should be completed. An assessment of market potential considering existing competition should also be completed.

### Holding Capacity

Live holding facilities should not be supported by government until a feasibility study and market research is completed by individuals or organizations seeking assistance.

### Marketing

A plan for marketing of Canadian lobster should be developed and implemented within a specific timeframe by the Lobster Council of Canada for the Canadian lobster industry utilizing a levy system where all stakeholders are required to contribute towards marketing for the industry.

### Quality

Quality standards and quality control should be developed for all aspects of the lobster industry and penalties implemented for product not meeting the minimum standards.

### Price Stability

The Province should review the Agri-Stability Program as to its applicability to the lobster industry and if so enter into negotiations with the Federal and Provincial governments.

### Workforce

Processors should be supported in efforts to advocate for exemption from specific changes to the Temporary Foreign Worker Program.

### Product Innovation

Government assistance should be provided in the area of new product development and innovation in the industry.

### Information Tracking & Sharing

Collection, analysis and sharing of credible information on a timely basis with stakeholders in the industry should increase the understanding of the impacts that various factors have on the industry. Industry and government need to identify the information that is required for making informed decisions to benefit the industry. Decisions should be made on what organizations are responsible for collection and analysis of identified data. A plan for dissemination of analysed data to appropriate stakeholders, depending on their needs, should be developed.

### Cooperation & Leadership

Strong cooperation and leadership will be required from all stakeholder groups in the industry.

# 5.0 THE PATH FORWARD

## 5.1 Price Setting Mechanism

### *5.1.1 Current Process*

In the various interviews we conducted, at every step in the supply chain, a number of factors were indicated as impacting shore price such as economic market conditions, exchange rates, and product remaining in inventory, however, based on our interviews it appears that although there is informal talking about price and factors that will impact it we found **no formal process is being used to establish shore price.** While some have made comments that the shore price is controlled by individuals with a large stake in the industry or fixed by a group of processors, it appears that essentially the parties involved wait for someone to take a risk and set a price and others follow. During the interviews some of the brokers/traders expressed frustration at the fact that there is no price established that they can use to market to their customers at key shows like the Brussels and Boston Seafood Shows. In times of demand being greater than supply of raw product (up to 2011) buyers/processors would increase the price by $0.25 per pound to attract new boats and others would have to follow or risk losing their supply. The agreement between a fisher and a buyer is informal and not binding as many fishers will sell their catch to an alternate buyer/processor if they are offered a better price. There are cases where even though a fisher is part of a cooperative (therefore participating in any profits) they may sell their catch to other buyers/processors.

### *5.1.2 Alternate Pricing Models*

There are some current pricing models in use in other sectors and for lobster in other provinces. A summary of the models explored follows.

#### PEI Potato Industry

Under the Natural Products Marketing Act and the Agriculture Products Marketing Act, the PEI potato growers and potato processors have a mechanism for establishing price before the grower plants. The objective of the potato industry is to try to match the supply of potatoes to the demand. This contracting process gives growers for the processing sector the knowledge to make this happen. For years, growers were planting speculatively and often ending up with fluctuating prices. With the mechanism and a greater grasp on North American volumes acreage has been reduced on PEI but prices have been more stable because of established demand.

A *Potato Processing Contract Negotiation Order* applies to dealings between potato producers and processors to arrive upon the form and content of contracts for the supply of potatoes for processing by processors.

Each party has a Negotiation Committee consisting of representatives engaged in negotiations to establish the terms and conditions applicable to the purchase of processing potatoes for a crop year.

The agreed upon contract addresses minimum contract prices for any variety, grade or size of processing potatoes; bonuses and penalties applicable to processing potatoes; terms and conditions respecting storage and delivery of processing potatoes; and any charges, costs, or expenses relating to the production or delivery of processing potatoes to the processor.

Factors to be taken into account include: the prices or projected prices paid for potatoes by competing processors in competing market areas; the quantity or projected quantity of potato production in PEI and competing market areas; the average cost of production of potatoes produced for processing purposes; prior contracts entered into by the processor; and other factors which historically had been taken into consideration in arriving at contracts for the sale of potatoes for processing potatoes.

A Negotiating Committee is formed on an annual basis for each processor with 6 representatives of the processor and 6 representatives of the Board. A contract is negotiated on an annual basis. If by the last Friday in March of each year the Negotiating Committee has not agreed upon the terms and conditions of a contract, the outstanding issues are submitted to mediation which takes place within 1 week and lasts no longer than 3 days. Arbitration may result from (1) a vote of the producers not approving results of mediation, (2) a majority vote of Negotiating Committee to submit outstanding issues to arbitration, or (3) if outstanding issues are not agreed to by April 15 of each year. The arbitration process occurs over a 17 to 19 day timeframe and results in the selection of one of the final offers in its entirety, without modification. A contract must be finalized within 5 days of the agreement or arbitration.

A contract process is optional for the producer. The producer can contract for all or part of their potato crop and rely on the open market for any non-contracted potatoes.

**Newfoundland and Labrador**

In the province of Newfoundland, the *Fishing Industry Collective Bargaining Act* regulates collective bargaining between fishers and processors/shippers. The Fish Food and Allied Workers (FFAW) is certified as the official bargaining agent for fishers in the province and the Seafood Producers of NL (SPONL) represents the lobster processors/shippers. In NL the primary use of lobster is in the live market.

The Standing Fish Price Setting Panel was established in 2006 as a permanent structure, with a legislated obligation to ensure price and conditions of sale are in place in time for the start of the fishery in the various species. Lobster has been a species under this legislation since 2011. The panel acts only where the parties have been unable to reach agreements on their own. For lobster the panel has been required to act since 2011. The result of this legislated process has been timely decisions on price and conditions of sale for the normal opening dates. The role of the panel includes establishing the parameters for negotiations, facilitating collective bargaining, acting as an arbitration panel in the setting of prices and the conditions of sale, and ultimately selecting the final offer when the parties to negotiations are unwilling or unable to agree. The decision of the panel is legally binding. The annual budget for the panel is approximately $250,000.

The Minister of Fisheries and Aquaculture, on an annual basis, sets the dates by which prices must be in effect. The panel then establishes a schedule for negotiations. The panel also establishes the rules and procedures to be followed in negotiation and provides the services of a facilitator for negotiations. The Market Intelligence Unit of the Department provides current international marketing information to assist the parties during the collective bargaining stage to assist in the decision making process.

The collective agreement must contain a price to market formula. In 2011, 2012, and 2013 the panel selected the offer of the FFAW which had a minimum price and a lobster schedule containing, in part, a pricing formula based on Urner Barry price reports (used as an index to calculate the "ups and downs" of the market place.) FFAW supports and SPONL rejects the use of Urner Barry as an index of market behavior. Other index options like a database of market information compiled by an accounting firm have been suggested by FFAW but rejected by SPONL. FFAW and SPONL are both in agreement that transparency and correlation to the market are principles that must be met in order to determine what constitutes a fair price for lobster.

### Magdalen Islands

The pricing model in the Magdalen Islands was developed from a model used in the Agriculture sector for products like cranberries and maple syrup. The administration of the pricing process is handled by the Fishermen's Association which is covered by a $0.04 per pound fee that fishermen pay (approximately $250,000 annually). Every Monday the 6 registered buyers are required to provide their sales slips for the past week and an average price per buyer. The lowest 2 average prices are dropped and an average of the other 4 is calculated and this becomes the price for the week with an 85%/15% split between the fisher and the buyer. Fishers are paid weekly on Tuesdays. There is negotiation that takes place between the Executive Director of the Fishermen's Association representing the fishers and the buyer's representative upon review of the average price. If disputes arise, the Bureau for Agricultural and Food Markets of Quebec becomes the arbitrator. This price setting mechanism applies only to live lobster which is approximately 6.5 million pounds. There is only 1 to 2 million pounds of lobster processed and processing lobster is purchased from Maine and the Maritime provinces.

### *5.1.3 Recommended Pricing Mechanism*

A Maritime wide minimum base price should be set for a quality lobster. An adjustment would then be applied to the base price depending on its use (live vs. processed) and size. Penalties may apply for product delivered with poor meat yield, missing claws, damaged shells or dead.

It will be necessary to set an annual date by which a price must be established. February may be the optimum time on an annual basis for setting the price as it follows 3 of the 4 major market events (Christmas, New Years, and Valentines) so the market situation and inventories are better known. There is also usually a bit of a lull in landings at this point prior to the spring fishery opening. A representative proportional negotiating committee for each of the parties (fishers, processors, and shippers) which considers Maritime wide representation and seasonal representation should be established. The dates for a price and contract to be established and the legal binding of the contract must be legislated to ensure adherence. An independent panel must be established to assist in facilitation of the negotiations and to serve as an arbitrator in the event that an agreement cannot be reached through negotiation of the parties.

To ensure that negotiations are being completed with accurate and reliable information, an independent cost of production report should be completed for each party and market intelligence on market prices, international market conditions, and exchange rates should be provided to the negotiating committee. In addition, once an initial base price is established for the industries indexes such as a fuel price index, CPI, Bank of Canada prime rate, published bait fish prices could be used to develop an index model for the components of the industry to measure change. Market prices can be indexed similar to a model used in NL which uses Urner Barry prices as an index.

Based on processing and live shipment capacity in the region, it is likely that not all supply will be contracted at the start of the season. It will be essential for trust to build in the sector and that contracts are established for a certain volume of supply at the price established. Supply over the amount demanded can either not be fished or be sold in an open market system which, depending on supply and market conditions, may be higher or lower than the set contract price.

**Recommendation**

**A price setting mechanism that is transparent, legally binding and Maritime wide should be established. It must consider factors such as cost of production for fishers, processors, and shippers along with market intelligence.**

## 5.2 Live Market Potential

As noted earlier in this report, PEI does not currently have a significant live export market for PEI landed lobster. While some live trade occurs with PEI and NB processors, in 2012 only 2.1 million pounds were shipped live, which represented only 8% of landings. Other live shipments from PEI are mainly live lobsters landed outside of PEI. The live market potential is currently being explored for PEI and some studies have been done.

One study was provided which indicated the blood protein level in certain areas may be sufficient for the live trade, however it is important to note that the study involved a small sample size of 30 lobsters in 4 ports over a 5 day period. The researcher also cautioned that although the blood protein level provided an indication that the PEI lobster would be suitable for live market and/or medium to long-term storage, the lobsters had been sampled shortly after post-landing at the wharf and it is possible blood protein levels could be slightly lower after holding than what was measured. It was recommended that pleopod staging be added to an ongoing sampling program to better document the quality and suitability to the live market. It was also indicated that the lobsters from LFA 26A, although blood protein was high, were more advanced in their premoult and could represent a significant risk for buyers looking to ship overseas or store medium to long term.

In 2009 a live holding project was done by the province which resulted in 38,000 pounds of lobster being held for a maximum of 3 weeks to assist in smoothing out the glut in landings. A shrinkage of 1.8% occurred in this period, however lobsters were both purchased and resold on PEI and did not require significant travel.

In 2011 a further pilot project was completed by the province in the initial weeks of the spring season which resulted in 300 pounds per week being purchased from the North Shore and South Shore of PEI (2,400 pounds in total) and shipped to Grand Manan, NB for holding in a tidal pound and held for periods ranging from 6 to 26 days. Mortality rates for the North Shore ranged from 4.44% to 30.3% and for the South Shore ranged from 6.82% to 9.65%. Blood protein levels using the mean Brix index were in the 8-10 range suitable for live market, however an average mortality of 10.6% still occurred. It is important to note that the study did not include observations during the harvesting such as weather conditions, water temperatures and handling practices. The lobsters were used for processing at the end of the study.

In 2011 another pilot project was conducted by the province in conjunction with a live shipper where 4,500 pounds of live canner lobster were shipped to China to customers who had traditionally been serviced with Nova Scotia hard shelled lobster. Only minimal documentation on the results of this pilot project were provided by the province, however the live shipper involved indicated that he experienced quality issues with the product resulting in a significant credit being issued to the customer. The live shipper indicated that while his live lobster trade in China has increased significantly it is with lobster landed in other areas and he is no longer shipping live PEI canner or market lobster into this market.

### Recommendation

**A robust assessment of the durability of PEI landed lobster as a live product for export markets considering all relevant factors should be completed. An assessment of market potential considering existing competition should also be completed.**

## 5.3 Assessment of Demand for Increased Holding Capacity

Increasing holding capacity for live lobster has been suggested as a proposed solution for addressing capacity issues in processing and increasing the shore price of lobster. A number of the processors, buyers and fishers did indicate a need for increased holding capacity in the industry however many cautioned that a number of factors must first be considered and assessed including:

- Purpose for which the lobster is being held (future processing or live market);
- Length of time for which the lobster is to be held;
- Need for quality control, qualified trained staff, and a proper chilling system;
- Need for an arrangement with a processor as weak lobster are graded out and require immediate processing;
- Determination of cost of maintaining water temperature;
- Determination of who is best to own facilities, as owner would absorb mortality, cost of operations, and need to cash flow operations; and
- Development of guidelines or regulations for operation of the facility.

While some processors indicated that the ability to hold 6 days production at a time would be of assistance there was concern that the current cost structure in the industry does not support the increased costs of holding as processors have indicated that they can't currently afford to buy a higher price lobster or incur the additional cost of holding the lobster on an already tight processing margin. A concern with acquiring sufficient workforce to increase processing capacity was also mentioned by many processors.

**Recommendation**

**Live holding facilities should not be supported by government until a feasibility study and market research is completed by individuals or organizations seeking assistance.**

## 5.4 Marketing

There is a need to increase the consumption of high value lobster products worldwide if market demand is to keep pace with supply on a North American basis. Increased consumption of lower priced lobster products through quick service restaurants is not the best solution for the industry if increased shore price is an objective. Increased consumption of higher priced lobster benefits each stakeholder along the supply chain and it is necessary that all are willing to contribute to a marketing levy to drive consumption.

Much discussion has been had about development of a PEI brand however there are no strong differentiating factors between lobster (Homarus americanus) landed in PEI and a lobster landed in other parts of Eastern Canada and Eastern US. The PEI brand, while

resonating with tourists to the regions, may not be as familiar as a Canadian brand when exported to them in their own country. Based on the current system lobsters processed on PEI include raw material from other than PEI and would be sold as a PEI product. In addition, 34% (2012) of our landed lobster is processed off-Island and these products are not sold as a PEI product.

There are other models that have been used successfully for other seafood products in Alaska and Norway and a new model is being implemented in Maine for lobster in the fall of 2013.

### Maine Lobster Marketing Collaborative

In July, 2013 a marketing bill was passed which resulted in new marketing entity "Maine Lobster Marketing Collaborative" (MLMC) being formed in Maine. The MLMC will oversee a budget of $750,000 in 2013, $1.5 million the following year and $2.25 million in years 3 to 5, to be spent on generic marketing and promotion of Maine lobster. The plan will be paid for through fees on licenses for fishermen, dealers and processors. The split on the funding burden is 69% fishers and 31% dealers and processors. For fishers the annual surcharge will increase annually from a range of $31.25 to $93.75 in 2013 to a range of $165 to $240 by 2016, depending on the type of license. For dealers and processors, the 2013 fee starts at $250. For processors, the fee is split into a 2-tier system for those processing less than 1 million pounds and those processing more: for 2013, those under 1 million pounds will pay $333 and those over a million pounds will pay $1,333. That fee eventually scales up to $1,000 for those who process under a million pounds and $4,000 for those who process more than a million. The legislation is set to be reviewed at the end of a 5 year period.

### Alaska Seafood Marketing Institute

In the Alaskan salmon industry, which many stakeholders referenced as a model that is working, the seafood processors pay a 0.5% tax on the value of all seafood species they process to the Alaska Seafood Marketing Institute, constituting approximately 50% of the revenue of the Institute, while 50% of funds come from government sources. With guidance from a Board of Directors and advisory committees the Institute has been able to increase the value of fresh, frozen, and shelf-stable (canned and pouched) Alaska Seafood in the US and key international markets; conduct innovative promotional activities with retail grocers, foodservice distributors, restaurant chains, foodservice operators, universities, and culinary schools to strengthen the Alaska Seafood brand; create and place new advertisements emphasizing sustainability of Alaska Seafood in publications read by home cooks, chefs, restaurant owners, and retail grocers; gain newspaper, magazine, radio, television and internet exposure for Alaska Seafood in US and key overseas markets; conduct media and chef tours/trade missions to Alaska from Holland, Japan, and China; and participate in trade shows in Asia, Europe, Mexico, and the US.

### Norwegian Seafood Council

The marketing work carried out by the Norwegian Seafood Council (NSC) is aimed at further increasing demand for Norwegian seafood. NSC's marketing activities serve to support the exporters' own sales efforts, and NSC is often involved in joint market activities together with partners within the Norwegian seafood industry. NSC implements some 500 marketing projects in 25 different countries all aimed at increasing demand for and consumption of seafood from Norway. NSC is financed by the Norwegian seafood industry through fees levied on all exports of Norwegian seafood.

NSC has established 5 advisory marketing groups, one for each of the most important seafood sectors. Advisory marketing groups have also been established for the Norwegian domestic market and for environmental documentation. The different groups comprise in total over 70 representatives from the seafood industry. NSC is a public company owned by the Ministry of Fisheries and Coastal Affairs.

### Recommendation

**A plan for marketing of Canadian lobster should be developed and implemented within a specified timeframe by the Lobster Council of Canada for the Canadian lobster industry utilizing a levy system where all stakeholders are required to contribute towards marketing for the industry.**

## 5.5 Quality

Quality is varied in the industry along the whole chain of custody of the lobster and currently there is no system of rewarding for quality. Quality control in the harvesting sector is varied with some fishers having live wells on boats and following proper operating procedures while other instances of overfilling and stacking of fish pans are still occurring. Some buyers use a tagging system on a constant basis to trace the lobster back to the boat to correct/prevent quality issues, other buyers will use this method on an as required basis when their shrinkage increases above 2.5% to 3%, while others never implement it. The methods of transport from the wharf to the processing plant are also varied by buyer including insulated trucks, refrigerated trucks, and insulated containers. Some buyers have live holding capacity where most do not. When the lobster reaches the processor there are also factors that may impact quality, especially during gluts. Some processors have live holding facilities which enable them to better manage production of desired product mixes while others with limited live holding capacity may have freezer capacity to hold product prior to processing.

Meat yield and intact lobster are significant quality factors to the processor in developing the optimum product mix. Lower yield lobster will result in an increased amount of raw product to produce a pound of meat. Lobster with missing claws and crushed shells impact the ability to process whole cooks, popsicles and green tails.

### Recommendation

**Quality standards and quality control should be developed for all aspects of the lobster industry and penalties implemented for product not meeting the minimum standards.**

## 5.6 Price Stability

In June 2009 the Federal Government announced a $15 million short-term transitional contribution for a Lobster Harvesters Plan for Lobster Fishers in Atlantic Canada and Quebec who experienced a significant drop in income from lobster harvesting in 2009. The contribution was determined based on landed values for 2008 and 2009. Based on DFO data 1,705 applications were approved under the program for $8.5 million. The program ended on March 31, 2010.

In 2012 federal, provincial and territorial Ministers of Agriculture reached agreement on the 5 year Growing Forward 2 policy framework. Included in this program is an agri-stability component which offers protection against large declines in farm income caused by low prices, rising input costs and production losses.

**Recommendation**

**The Province should review the Agri-Stability Program as to its applicability to the lobster industry and if so enter into negotiations with the Federal and Provincial governments.**

## 5.7 Workforce

A productive and complete workforce has become a major challenge for processors in achieving maximum capacity from their operations. Many of the processors we interviewed have indicated that while a loyal workforce had existed it is aging and local labour is becoming increasingly difficult to acquire. They have also indicated that there are increasing challenges with productivity and absenteeism. This has resulted in many processors requiring temporary foreign workers to staff their operations. Processors have indicated that changes to the Temporary Foreign Worker Program will have a negative impact on their operations. These changes include a new fee for a labour market opinion of $275 per position, a new language restriction requiring English or French, new advertising requirements requiring the employer to undergo a more extensive effort (essentially double the length, reach and cost of employers' advertising efforts) to hire Canadians before they apply for the program, and more extensive questions to be answered about impacts on the Canadian job market. Currently exemptions from some of these changes exist for the Agriculture Stream.

**Recommendation**

**Processors should be supported in efforts to advocate for exemption from specific changes to the Temporary Foreign Worker Program.**

## 5.8 Product Innovation

During stakeholder discussions it was indicated that new product development is required to grow the market. Food trends in the market place include a move towards at-home meal products which can be prepared with limited cooking skills and include products that are pre-cooked fresh and frozen dinners or meal helpers such as ready-made meat. Brokers have indicated that the "popsicle" is a tired product and getting more difficult to move in the marketplace.

Processors have indicated that they get requests from customers for new specialty product forms on an ongoing basis, but with limited funds for investing in product development they are unable to deal with all requests. Factors impacting doing more value added production include: cash flow, the fact that value added production does slow down the use of raw product when trying to keep up with the supply of raw product being landed, and the degree of flexibility required in a plant to move equipment in and out of the line depending on the product and having storage space for that equipment when not in use.

There are also new innovations in the European market with high pressure processing equipment which increases product yield and reduces labour by achieving physical meat separation from lobsters. By denaturing the specific protein that holds the meat to the shell, separation takes place without causing mechanical damage. These new innovations would assist processors in not only new product development, increasing yield on raw material but also in dealing with current labour challenges.

**Recommendation**

**Government assistance should be provided in the area of new product development and innovation in the industry.**

## 5.9 Information Tracking and Sharing

Information on the industry is essential to inform industry stakeholders in decision making processes. Other industry associations regularly collect and disseminate useful data to their membership.

The Provincial department collects information from the buyers license application forms on buying stations and equipment, projected purchases, and where raw product will be sold; buyer information on sales including poundage, form and source from annual statements; weekly reports from buyers on landings; weekly prices from a sample of buyers; processor information from license application forms on freezing, cold storage and refrigerated holding capacity, methods of transport for raw product, source of product, projected poundage and projected labour force; and processor information from annual statements on product forms and poundage.

The collection of some of this data is part of the licensing process and in some areas has been incomplete. In addition some of the data collected is retained only on the source document and not compiled in a reporting system for useful analysis.

In discussions with a number of processors and brokers/traders in the industry it was noted that there is no system for tracking inventory of finished product. We were told attempts were made in the 1980's to do an inventory for processors through the Canadian Atlantic Lobster Promotion Association (CALPA) where information was to be provided anonymously to a Chartered Accountant firm and then presented on a generic basis, however not all were willing to participate.

In our discussions with the Atlantic Veterinary College (AVC) Lobster Science Centre they indicated they used to track live lobster inventory data from 8-10 major live shippers, primarily from NS, but that this responsibility had been transferred to the Lobster Council of Canada (LCC), however in our discussions with the LCC they indicated it was being collected by AVC. There was indication that there is some tracking of live inventory being done by a shipper for some other shippers in the region.

Market data is available on exports (outside of Canada) on a product category basis and by country through Statistics Canada and International Trade Data, however it does not appear that fishers have a great awareness of the markets and product forms for the lobsters they are landing. There is limited domestic data available.

In discussions with the PEI Fishermen's Association they indicated they do not track any information in house. Requests from PEIFA for information on the number of licensed fishers for each LFA had to be obtained from DFO. Cost of production information for fishers provided by the PEIFA is a 2009 update of a 2004 DFO study and is outdated.

Recommendation

Collection, analysis and sharing of credible information on a timely basis with stakeholders in the industry should increase the understanding of the impacts that various factors have on the industry. Industry and government need to identify the information that is required for making informed decisions to benefit the industry. Decisions should be made on which organizations are responsible for the collection and analysis of identified data. A plan for dissemination of analysed data to appropriate stakeholders, depending on their needs, should be developed.

## 5.10 Cooperation and Leadership

Improving the lobster industry will require a Maritime solution and it will not be a quick fix. Notwithstanding the current structure of the industry, fishers will need to join together not only provincially, but regionally and be willing to work in a collaborative manner with the processors and shippers to negotiate a price and to commit to honouring agreed upon contracts. Processors and shippers will also need to work together regionally to negotiate a price. It will be essential that those selected as representatives on the negotiating committee are supported by those they represent. It will be essential to moving forward that credible information is collected, analysed and shared to aid the decision making process.

Recommendation

Strong cooperation and leadership will be required from all stakeholder groups in the industry.

## 5.11 Summary

The 2013 lobster season was not an easy one for stakeholders in the industry. At the start of the spring season tensions were high between fishers and processors and the distrust among parties in the industry accelerated. What was evident from our discussions with stakeholders in the industry is that if nothing changes the industry will not move forward. We also heard a desire from industry in all facets to achieve better results. A clear path forward will be essential if industry at all levels is to be successful. While some of the recommendations listed above can be implemented in PEI alone, others will require Maritime cooperation. Fishers and processors will need to work together to improve the industry for all involved and it will be necessary for fishers to understand the business models of processors and for processors to understand the business model of fishers for this to happen.

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# Appendix II – Figures

Figure 1: Licensed Fish Harvesters Prince Edward Island, 2008-2013

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| LFA 24 | | | | | | |
| Category A | 635 | 635 | 635 | 635 | 635 | 635 |
| Category B | 4 | 4 | 4 | 2 | 1 | 1 |
| Partnership A | - | - | - | - | - | - |
| | 639 | 639 | 639 | 637 | 636 | 636 |
| LFA 25 | | | | | | |
| Category A | 252 | 250 | 226 | 226 | 225 | 206 |
| Category B | - | - | - | - | - | - |
| Partnership A | - | 2 | 2 | - | - | - |
| | 252 | 252 | 228 | 226 | 225 | 206 |
| LFA 26A | | | | | | |
| Category A | 398 | 394 | 386 | 364 | 365 | 358 |
| Category B | 1 | 1 | 1 | 1 | 1 | 1 |
| Partnership A | 4 | 8 | 16 | 14 | 12 | 12 |
| | 403 | 403 | 403 | 379 | 378 | 371 |
| | 1,294 | 1,294 | 1,270 | 1,242 | 1,239 | 1,213 |

*Source: DFO*

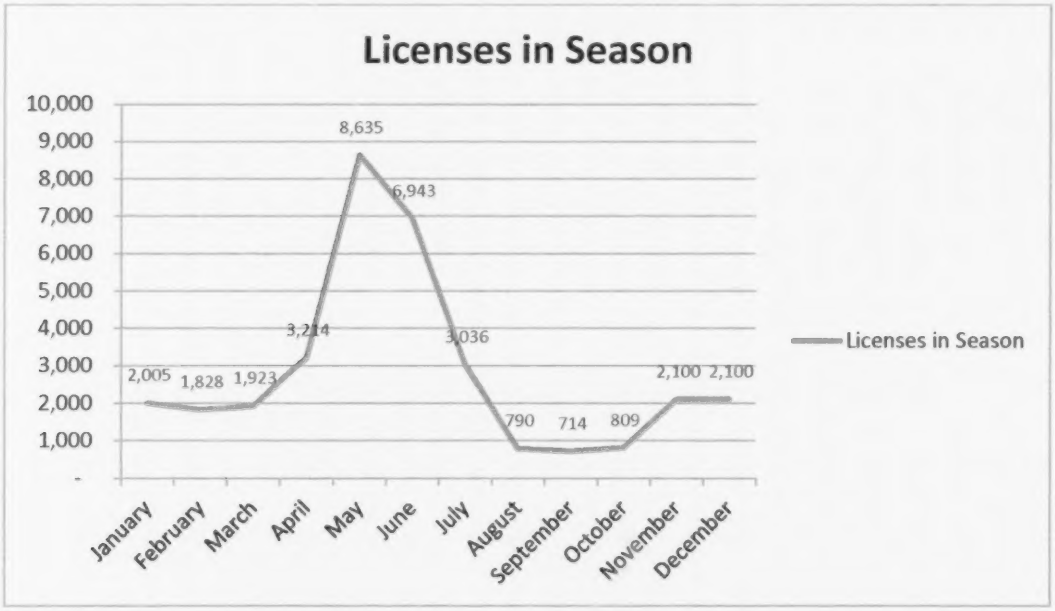
Figure 2: Licensed Fish Harvesters North America, 2013

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013[3] |
|---|---|---|---|---|---|---|
| Prince Edward Island[1] | 1,294 | 1,294 | 1,270 | 1.242 | 1,239 | 1,213 |
| Newfoundland and Labrador | 2,864 | 2,880 | 2,866 | 2,844 | 2,690 | 2,746 |
| Quebec | 628 | 628 | 617 | 604 | 604 | 605 |
| New Brunswick | 1,713 | 1,740 | 1,742 | 1,593 | 1,432 | 4,785 |
| Nova Scotia | 3,361 | 3,565 | 3,566 | 3,178 | 3,165 | |
| Total Canadian | 9,860 | 10,107 | 10,061 | 8,220 | 9,130 | 9,349 |
| Maine[2] | 4,523 | 4,372 | 4,311 | 4,365 | 4,290 | 4,300 |
| | 14,383 | 14,479 | 14,372 | 12,585 | 13,420 | 13,649 |

*Source: DFO*

1. Information received from DFO directly does not match information posted on their website. Information for PEI is from information provided by PEIFA obtained from DFO Area Director, PEI Area Office. Information for other provinces is from DFO website.
2. Represents number of active commercial fishers – there are 5,963 lobster license holders.
3. Extracted from Lobster-Integrated Fisheries Management Plan Summary Table (2013). Maritimes includes NS and NB and is 3,032 and Gulf includes NS, NB and PEI and is 2,966.

Figure 3: Number of Licensed Lobster Fishers in Season by Month in Atlantic Canada, 2013




*Source: Compiled with raw data from DFO, Lobster-Integrated Fisheries Management Plan Summary Table (2013)*

Figure 4: Lobster Landings in Millions of lbs., North America, 2008-2013

| | 2008 | 2009 | 2010 | 2011 | 2012 | % chg. 2008 - 2012 | 2013 | % chg. 2012 - 2013 |
|---|---|---|---|---|---|---|---|---|
| Prince Edward Island[1] | 21.9 | 22.9 | 23.8 | 20.8 | 27.3 | 25% | 28.8 | 5% |
| Newfoundland and Labrador | 6.6 | 5.5 | 5.7 | 4.3 | 4.7 | -28% | | |
| Quebec | 8.3 | 8.2 | 9.7 | 8.8 | 8.8 | 6% | | |
| New Brunswick | 20.1 | 22.8 | 25.9 | 27.3 | 28.1 | 40% | | |
| Nova Scotia | 73.3 | 69.4 | 83.7 | 86.8 | 89.3 | 22% | | |
| Canadian | 130.2 | 128.8 | 148.8 | 148.0 | 158.2 | 22% | | |
| Maine | 69.9 | 81.2 | 96.2 | 104.9 | 123.3 | 76% | | |
| | 200.1 | 210.1 | 245.0 | 252.9 | 281.5 | 41% | | |

*Source: PEI Department of Fisheries, Aquaculture and Rural Development; "Commercial Fisheries Landings", Fisheries and Oceans Canada. Retrieved from* http://www.dfo-mpo.gc.ca/stats/commercial/land-debarq-eng.htm*; and Maine Lobster Landings Table.*

1. PEI data is based on information collected by the PEI Department of Fisheries, Aquaculture and Rural Development.

Figure 5: Average Catch per Fisher, 2012

| Location | 2012 | # of Licensed Fishers | Avg. Catch per Fisher (lbs.) |
|---|---|---|---|
| Prince Edward Island | 27.3 | 1,239 | 22,000 |
| Newfoundland and Labrador | 4.7 | 2,690 | 1,700 |
| Quebec | 8.8 | 604 | 14,600 |
| New Brunswick | 28.1 | 1,432 | 19,600 |
| Nova Scotia | 89.3 | 3,165 | 28,200 |
| Maine | 123.3 | 4,290 | 28,700 |

*Source: PEI Department of Fisheries, Aquaculture and Rural Development; "Commercial Fisheries Landings", Fisheries and Oceans Canada. Retrieved from:* http://www.dfo-mpo.gc.ca/stats/commercial/land-debarq-eng.htm*; and Maine Lobster Landings Table.*

Figure 6: Active Licensed Lobster Buyers, Prince Edward Island, 2008-2013

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| | Active Licenses | | | | | |
| All categories | 39 | 35 | 37 | 32 | 32 | 31 |
| | Licenses Approved by Category | | | | | |
| Independent | 41 | 27 | 40 | 37 | 41 | 25 |
| Retailer | 20 | 18 | 18 | 16 | 14 | 12 |
| Processor | 13 | 9 | 9 | 8 | 8 | 7 |
| | 74 | 54 | 67 | 61 | 63 | 44 |

*Source: PEI Department of Fisheries, Aquaculture and Rural Development*

Figure 7: Primary Lobster Processors, Prince Edward Island, 2008-2013

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 |
|---|---|---|---|---|---|---|
| Primary | 8 | 8 | 8 | 8 | 8 | 8 |

*Source: PEI Department of Fisheries, Aquaculture and Rural Development*

Figure 8: Total Exports for PEI Lobster Products, 2012

| | Popsicle packs | Green tails and whole cooked | Live | Prepared | Meat |
|---|---|---|---|---|---|
| PEI Quantity (KGM) | 750,266 | 3,204,748 | 984,284 | 13,931 | 1,228,147 |
| Canadian Quantity (KGM) | 3,403,257 | 17,058,258 | 30,768,770 | 36,356 | 7,436,141 |
| PEI % of Canadian Total (quantity) | 22% | 19% | 3% | 38% | 17% |
| Category as % of PEI Export Value (quantity) | 12% | 52% | 16% | 0% | 20% |
| PEI Value (Cdn $) | $13,117,020 | $ 68,575,138 | $12,559,939 | $ 164,366 | $ 38,075,095 |
| Canadian Value (Cdn $) | $ 56,454,716 | $412,368,581 | $402,405,851 | $ 759,061 | $199,057,252 |
| PEI % of Canadian Total (value) | 23% | 17% | 3% | 22% | 19% |
| Category as % of PEI Export Value (value) | 10% | 52% | 9% | 0% | 29% |
| | Lobster meat, o/t frozen, cooked by steaming or boiling in water | Prepared/ preserved | Other | | Total |
| PEI Quantity (KGM) | 15,684 | 2,620 | 157,124 | | 6,181,376 |
| Canadian Quantity (KGM) | 250,154 | 56,051 | 764,314 | | 58,702,782 |
| PEI % of Canadian Total (quantity) | 6% | 5% | 21% | | 11% |
| Category as % of PEI Export Value (quantity) | 0% | 0% | 3% | | |
| PEI Value (Cdn $) | $ 235,175 | $ 80,097 | $1,194,398 | | $132,491,558 |
| Canadian Value (Cdn $) | $ 9,790,072 | $ 1,776,187 | $ 3,821,464 | | $1,071,045,461 |
| PEI % of Canadian Total (value) | 2% | 5% | 31% | | 12% |
| Category as % of PEI Export Value (value) | 0% | 0% | 1% | | |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 9: PEI Exports by Country, 2012

| Country of Destination | Quantity (KGM) | Value (Cdn $) | % of PEI Exports (Quantity) | % of PEI Exports (Value) |
|---|---|---|---|---|
| United States | 5,228,939 | $ 114,300,247 | 82.3% | 85.3% |
| Germany | 225,572 | $3,683,924 | 3.5% | 2.7% |
| China | 193,770 | $3,190,211 | 3.0% | 2.4% |
| Japan | 130,113 | $2,960,181 | 2.0% | 2.2% |
| Sweden | 123,710 | $2,155,990 | 1.9% | 1.6% |
| France | 104,322 | $1,917,903 | 1.6% | 1.4% |
| Hong Kong | 84,087 | $1,313,878 | 1.3% | 1.0% |
| Denmark | 56,001 | $630,276 | 0.9% | 0.5% |
| United Arab Emirates | 27,712 | $531,541 | 0.4% | 0.4% |
| Italy | 27,997 | $420,325 | 0.4% | 0.3% |
| Spain | 18,819 | $329,217 | 0.3% | 0.2% |
| Norway | 17,600 | $257,857 | 0.3% | 0.2% |
| Republic of Ireland (Eire) | 17,237 | $244,250 | 0.3% | 0.2% |
| United Kingdom | 2,649 | $80,326 | 0.0% | 0.1% |
| Viet Nam | 573 | $10,861 | 0.0% | 0.1% |
| Netherlands | 4,356 | $65,884 | 0.1% | 0.0% |
| Australia | 1,448 | $38,384 | 0.0% | 0.0% |
| Belgium | 90,513 | $1,843,495 | 0.0% | 0.0% |
| Taiwan | 673 | $11,462 | 0.0% | 0.0% |
| Malaysia | 269 | $6,285 | 0.0% | 0.0% |
| Switzerland | 314 | $6,002 | 0.0% | 0.0% |
| South Korea | 109 | $2,128 | 0.0% | 0.0% |
| Saint Pierre and Miquelon | 21 | $501 | 0.0% | 0.0% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 10: Major PEI Export Markets by Product, 2012

| | Popsicle packs | Green tails and whole cooked | Lobsters, live | Prepared | Meat | Other |
|---|---|---|---|---|---|---|
| United States (KGM) | - | 3,092,387 | 726,287 | 13,931 | 1,239,210 | 157,124 |
| United States (Cdn $) | - | $66,730,986 | $8,032,491 | $164,366 | $38,178,006 | $1,194,398 |
| Japan (KGM) | 118,425 | 11,688 | - | - | - | - |
| Japan (Cdn $) | $2,543,220 | $ 416,961 | - | - | - | - |
| Germany (KGM) | 223,750 | - | - | - | 1,822 | - |
| Germany (Cdn $) | $3,632,024 | - | - | - | $51,900 | - |
| Sweden (KGM) | 123,710 | - | - | - | - | - |
| Sweden (Cdn $) | $2,155,990 | - | - | - | - | - |
| China (KGM) | 33,017 | 7,363 | 153,390 | - | - | - |
| China (Cdn $) | $ 380,903 | $ 116,019 | $ 2,693,289 | - | - | - |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 11: PEI Export Value by Top 10 Countries, 2008 to 2012

| Country of Destination | 2008 | 2009 | 2010 | 2011 | 2012 | % chg. 2008 to 2012 |
|---|---|---|---|---|---|---|
| United States | $122,659,872 | $78,873,175 | $ 102,136,118 | $ 85,335,759 | 114,300,247 | -7% |
| Germany | $2,471,888 | $3,209,576 | $ 2,115,725 | $ 810,152 | $3,683,924 | 49% |
| China | $ - | $679,920 | $122,026 | $1,844,208 | $3,190,211 | n/a |
| Japan | $3,958,326 | $4,427,685 | $7,403,766 | $ 3,577,134 | $2,960,181 | -25% |
| Sweden | $1,219,542 | $1,260,107 | $3,161,238 | $2,069,797 | $ 2,155,990 | 77% |
| France (incl. Monaco, French Antilles) | $5,572,200 | $4,386,003 | $5,083,165 | $2,429,074 | $1,917,903 | -66% |
| Belgium | $3,821,578 | $ 1,807,165 | $429,000 | $1,801,868 | $1,843,495 | -52% |
| Hong Kong | $91,944 | $ 826,747 | $ 267,738 | $1,675,246 | $1,313,878 | 1329% |
| Denmark | $505,323 | $ 99,081 | $360,936 | $ 1,545 | $630,276 | 25% |
| United Arab Emirates | $ - | $ - | $ - | $318,259 | $531,541 | n/a |
| Sub-total | $140,300,673 | $ 95,569,459 | $121,079,712 | $99,863,042 | $132,527,646 | -6% |
| Others | $9,089,966 | $ 7,480,721 | $10,922,468 | $12,788,022 | $ 1,473,482 | -84% |
| Total All Countries | $149,390,639 | $103,050,180 | $132,002,180 | $112,651,064 | 134,001,128 | -10% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 12: Total Exports for NB Lobster Products, 2012

| | Popsicle packs | Green tails and whole cooked | Live | Prepared | Meat |
|---|---|---|---|---|---|
| NB Quantity (KGM) | 1,593,874 | 8,933,942 | 6,020,228 | 8,637 | 4,854,534 |
| Canadian Quantity (KGM) | 3,403,257 | 17,058,258 | 30,768,770 | 36,356 | 7,436,141 |
| NB % of Canadian Total (quantity) | 47% | 52% | 20% | 24% | 65% |
| Category as % of NB Export Value (quantity) | 7% | 40% | 27% | 0% | 22% |
| NB Value (Cdn $) | $30,408,479 | $238,019,064 | $69,391,619 | $224,341 | $127,728,150 |
| Canadian Value (Cdn $) | $56,454,716 | $412,368,581 | $402,405,851 | $265,927 | $199,057,252 |
| NB % of Canadian Total (value) | 54% | 58% | 17% | 35% | 64% |
| Category as % of NB Export Value (value) | 6% | 50% | 15% | 0% | 27% |
| | Lobster meat, o/t frozen, cooked by steaming or boiling in water | Prepared/ preserved | Other | | Total |
| NB Quantity (KGM) | 142,488 | 38,769 | 476.579 | | 22,069,051 |
| Canadian Quantity (KGM) | 250,154 | 56,051 | 764.314 | | 59,773,301 |
| NB % of Canadian Total (quantity) | 57% | 69% | 62% | | 37% |
| Category as % of NB Export Value (quantity) | 1% | 0% | 2% | | |
| NB Value (Cdn $) | $6,620,711 | $1,216,414 | $1,915,431 | | $475,566,195 |
| Canadian Value (Cdn $) | $ 9,790,072 | $1,776,187 | $3,821,464 | | $1,086,433,184 |
| NB % of Canadian Total (value) | 68% | 68% | 50% | | 44% |
| Category as % of NB Export Value (value) | 1% | 0% | 0% | | |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 13: NB Exports by Country, 2012

| Country of Destination | Quantity (KGM) | Value (Cdn $) | % of NB Exports (Quantity) | % of NB Exports (Value) |
|---|---|---|---|---|
| United States | 19,781,257 | $439,044,001 | 89.6% | 92% |
| Japan | 605,372 | $13,906,196 | 2.7% | 3% |
| France | 605,777 | $7,119,408 | 2.7% | 1% |
| Belgium | 207,595 | $2,062,340 | 0.9% | 0% |
| South Korea | 64,008 | $2,033,352 | 0.3% | 0% |
| Spain | 164,535 | $1,993,820 | 0.7% | 0% |
| Italy | 132,528 | $1,919,655 | 0.6% | 0% |
| Hong Kong | 109,931 | $1,537,343 | 0.5% | 0% |
| Germany | 47,824 | $1,294,355 | 0.2% | 0% |
| China | 90,477 | $1,235,879 | 0.4% | 0% |
| United Kingdom | 56,071 | $798,520 | 0.3% | 0% |
| Norway | 83,336 | $744,244 | 0.4% | 0% |
| Viet Nam | 56,898 | $716,367 | 0.3% | 0% |
| Sweden | 23,132 | $481,555 | 0.1% | 0% |
| Taiwan | 29,626 | $423,194 | 0.1% | 0% |
| Russian Federation | 5,840 | $101,503 | 0.0% | 0% |
| Singapore | 2,259 | $90,122 | 0.0% | 0% |
| Netherlands | 752 | $31,849 | 0.0% | 0% |
| Ukraine | 858 | $16,728 | 0.0% | 0% |
| United Arab Emirates | 975 | $15,764 | 0.0% | 0% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 14: Canadian Export Sales, 2008 to 2012

| | 2008 | 2009 | 2010 | 2011 | 2012 | % chg. 2008 to 2012 |
|---|---|---|---|---|---|---|
| Quantity (KGM) | 44,188,979 | 44,543,488 | 50,881,390 | 56,415,018 | 59,773,301 | 35% |
| Value (Cdn $) | $921,568,773 | $803,742,157 | $946,553,509 | $1,027,385,959 | $1,086,433,184 | 18% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 15: Canadian Export Value by Top 10 Countries, 2008 to 2012

| Country of Destination | 2008 | 2009 | 2010 | 2011 | 2012 | % chg. 2008 to 2012 | % of Total 2012 |
|---|---|---|---|---|---|---|---|
| United States | 758,686,207 | 645,496,351 | 768,949,628 | 804,766,729 | 876,837,613 | 16% | 81% |
| China | 1,565,741 | 4,501,407 | 9,810,558 | 27,453,977 | 40,570,565 | 2,491% | 4% |
| Japan | 26,449,688 | 19,868,922 | 28,634,269 | 34,614,646 | 32,771,676 | 24% | 3% |
| Belgium | 21,737,042 | 22,047,934 | 21,872,014 | 27,590,956 | 22,922,275 | 5% | 2% |
| Hong Kong | 5,437,821 | 8,598,692 | 15,164,503 | 17,784,117 | 20,870,830 | 284% | 2% |
| France (incl. Monaco, French Antilles) | 23,740,530 | 18,960,430 | 24,235,479 | 26,331,504 | 19,359,030 | -18% | 2% |
| Korea, South | 13,060,543 | 15,445,702 | 17,175,093 | 16,962,057 | 16,309,931 | 25% | 2% |
| Germany | 19,103,157 | 11,930,730 | 5,726,082 | 7,793,165 | 9,809,962 | -49% | 1% |
| Netherlands | 7,516,777 | 7,950,839 | 10,654,087 | 11,949,279 | 7,217,721 | -4% | 1% |
| United Kingdom | 8,869,320 | 12,756,495 | 8,250,768 | 8,414,928 | 6,998,805 | -21% | 1% |
| Sub-total | 886,166,826 | 767,557,502 | 910,472,481 | 983,661,358 | 1,053,668,408 | 19% | 97% |
| Others | 35,401,947 | 36,184,655 | 36,081,028 | 43,724,601 | 32,764,776 | -7% | 3% |
| Total All Countries | 921,568,773 | 803,742,157 | 946,553,509 | 1,027,385,959 | 1,086,433,184 | 18% | 100% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 16: Canadian Exports to China by Product, 2008 to 2012

| Product | Measurement | 2008 | 2009 | 2010 | 2011 | 2012 | 2012 % of Total |
|---|---|---|---|---|---|---|---|
| Popsicle packs | Quantity (KGM) | 3,427 | 75,666 | 30,715 | 217,407 | 67,481 | 3% |
| Popsicle packs | Value (Cdn $) | $85,675 | $935,691 | $682,539 | $2,556,138 | $926,083 | 2% |
| Green tails and whole cooked | Quantity (KGM) | 2,188 | 52,548 | 66,657 | 59,724 | 379,123 | 15% |
| Green tails and whole cooked | Value (Cdn $) | $27,391 | $742,355 | $697,829 | $820,292 | $4,554,251 | 11% |
| Live | Quantity (KGM) | 81,888 | 149,141 | 444,804 | 1,361,406 | 2,088,878 | 82% |
| Live | Value (Cdn $) | $1,373,523 | $2,778,561 | $7,674,600 | $23,621,041 | $35,078,081 | 86% |
| Prepared | Quantity (KGM) | 0 | 0 | 59,264 | 35,999 | 680 | 0% |
| Prepared | Value (Cdn $) | $0 | $0 | $755,275 | $456,506 | $12,150 | 0% |
| Meat | Quantity (KGM) | 1,183 | 22,353 | 41 | 0 | 0 | 0% |
| Meat | Value (Cdn $) | $79,152 | $44,800 | $315 | $0 | $0 | 0% |
| | Total Quantity (KGM) | 88,686 | 299,708 | 601,481 | 1,674,536 | 2,536,162 | |
| | Total Value (Cdn $) | $1,565,741 | $4,501,407 | $9,810,558 | $27,453,977 | $40,570,565 | |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 17: Export of Live Product to China by Province, by quantity (lbs.) 2008 to 2012

| Province | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| British Columbia | 717 | - | - | 9 | 7,189 |
| New Brunswick | - | - | - | 14,998 | 1,433 |
| Newfoundland and Labrador | - | - | - | - | 150 |
| Northwest Territories | - | - | - | 2,304 | - |
| Nova Scotia | 179,815 | 324,359 | 877,655 | 2,463,303 | 3,772,460 |
| Ontario | - | 3,602 | 101,293 | 266,662 | 459,282 |
| Prince Edward Island | - | - | - | 254,107 | 338,167 |
| Quebec | - | 838 | 1,676 | - | 26,502 |
| | 180,532 | 328,799 | 980,624 | 3,001,383 | 4,605,182 |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 18: Canadian Exports to Hong Kong by Product, 2008 to 2012

| Product | Measurement | 2008 | 2009 | 2010 | 2011 | 2012 | % chg from 2008 to 2012 |
|---|---|---|---|---|---|---|---|
| Popsicle packs | Quantity (KGM) | 5,998 | 49,559 | 73,791 | 148,506 | 40,519 | 576% |
| Popsicle packs | Value (Cdn $) | $108,006 | $582,158 | $735,359 | $1,281,803 | $548,420 | 408% |
| Green tails and whole cooked | Quantity (KGM) | 6,588 | 81,237 | 92,768 | 119,970 | 314,598 | 4675% |
| Green tails and whole cooked | Value (Cdn $) | $126,212 | $1,114,312 | $1,158,568 | $1,787,285 | $4,089,571 | 3140% |
| Live | Quantity (KGM) | 281,726 | 426,877 | 720,763 | 812,914 | 953,765 | 239% |
| Live | Value (Cdn $) | $5,197,203 | $6,787,406 | $13,034,056 | $14,715,029 | $15,802,863 | 204% |
| Prepared | Quantity (KGM) | | | 18,676 | | 807 | |
| Prepared | Value (Cdn $) | | | $202,517 | | $24,920 | |
| Meat | Quantity (KGM) | 124 | 6,041 | 1,589 | | 26,055 | 20912% |
| Meat | Value (Cdn $) | $6,400 | $60,100 | $34,003 | | $405,056 | 6229% |
| Prepared/ preserved | Quantity (KGM) | | 2,268 | | | | |
| Prepared/ preserved | Value (Cdn $) | | $41,000 | | | | |
| Other | Quantity (KGM) | | 346 | | | | |
| Other | Value (Cdn $) | | $13,716 | | | | |
| Total | Quantity (KGM) | 294,436 | 566,328 | 907,587 | 1,081,390 | 1,335,744 | 354% |
| Total | Value (Cdn $) | $5,437,821 | $8,598,692 | $15,164,503 | $17,784,117 | $20,870,830 | 284% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 19: Canadian Exports to Germany by Product, 2008 to 2012

| Product | Measurement | 2008 | 2009 | 2010 | 2011 | 2012 | % chg from 2008 to 2012 |
|---|---|---|---|---|---|---|---|
| Popsicle packs | Quantity (KGM) | 326,867 | 330,122 | 151,995 | 104,967 | 325,920 | 0% |
| Popsicle packs | Value (Cdn $) | $5,664,702 | $4,644,910 | $2,516,060 | $2,000,534 | $4,853,943 | -14% |
| Green tails and whole cooked | Quantity (KGM) | 62,994 | 164,001 | 53,666 | 119,311 | 54,824 | -13% |
| Green tails and whole cooked | Value (Cdn $) | $2,466,398 | $2,324,940 | $1,351,973 | $2,216,971 | $1,658,896 | -33% |
| Live | Quantity (KGM) | 570,939 | 280,304 | 101,193 | 183,356 | 167,365 | -71% |
| Live | Value (Cdn $) | $9,581,402 | $4,960,880 | $1,673,350 | $3,318,570 | $2,944,459 | -69% |
| Prepared | Quantity (KGM) | 0 | 0 | 11,271 | 0 | 0 | |
| Prepared | Value (Cdn $) | $0 | $0 | $124,372 | $0 | $0 | |
| Meat | Quantity (KGM) | 112,124 | 0 | 1,622 | 4,811 | 10,014 | -91% |
| Meat | Value (Cdn $) | $1,390,655 | $0 | $59,247 | $173,500 | $352,664 | -75% |
| Prepared/ preserved | Quantity (KGM) | 0 | 0 | 14 | 0 | 0 | |
| Prepared/ preserved | Value (Cdn $) | $0 | $0 | $432 | $0 | $0 | |
| Other | Quantity (KGM) | 0 | 0 | 22 | 3,077 | 0 | |
| Other | Value (Cdn $) | $0 | $0 | $648 | $83,590 | $0 | |
| Total | Quantity (KGM) | 1,072,924 | 774,427 | 319,783 | 415,522 | 558,123 | -48% |
| Total | Value (Cdn $) | $19,103,157 | $11,930,730 | $5,726,082 | $7,793,165 | $9,809,962 | -49% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 20: Canada's Exports to US in Comparison to all Countries, 2008 to 2012

| Year | US Quantity | All Countries Quantity | US % of All Countries | US Value | All Countries Value | US % of All Countries |
|---|---|---|---|---|---|---|
| 2008 | 34,985,165 | 44,188,979 | 79% | $758,686,207 | 921,568,773 | 82% |
| 2009 | 34,884,690 | 44,543,488 | 78% | $645,496,351 | 803,742,157 | 80% |
| 2010 | 40,283,901 | 50,881,390 | 79% | $768,949,628 | 946,553,509 | 81% |
| 2011 | 42,677,924 | 56,415,018 | 76% | $804,766,729 | 1,027,385,959 | 78% |
| 2012 | 46,781,834 | 59,773,301 | 78% | $876,837,613 | 1,086,433,184 | 81% |
| | 199,613,514 | 255,802,176 | 78% | $3,854,736,528 | 4,785,683,582 | 81% |
| % chg 2008 to 2012 | 34% | 35% | | 16% | 18% | |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 21: Average Pounds Landed per Fisher, 2008-2012

| Year | LFA 24 | LFA 26A | LFA 25 | Total |
|---|---|---|---|---|
| 2008 | 21,955 | 11,990 | 12,038 | 16,920 |
| 2009 | 22,596 | 12,436 | 13,845 | 17,727 |
| 2010 | 22,832 | 12,833 | 17,808 | 18,757 |
| 2011 | 19,200 | 13,072 | 16,206 | 16,785 |
| 2012 | 25,461 | 17,080 | 20,429 | 21,990 |
| 2013 | 26,432 | 19,358 | 23,187 | 23,717 |

*Source: Compiled from information supplied by Department of Fisheries, Aquaculture and Rural Development*

Figure 22: Calculation of Average Price per Pound, PEI 2013

| | Canner | Market | Total |
|---|---|---|---|
| | Average Price | | |
| LFA 24 | $ 2.79 | $ 3.31 | |
| LFA 26A | $ 2.82 | $ 3.45 | |
| LFA 25 | $ 2.55 | $ 2.80 | |
| | | | |
| | Quantity (lbs.) | | |
| LFA 24 | 9,479,995 | 7,330,505 | 16,810,500 |
| LFA 26A | 3,042,286 | 4,139,431 | 7,181,717 |
| LFA 25 | 2,624,689 | 2,151,911 | 4,776,600 |
| | 15,146,970 | 13,621,847 | 28,768,817 |
| | | | |
| | Value | | |
| LFA 24 | $ 26,449,186 | $ 24,263,972 | $ 50,713,158 |
| LFA 26A | $ 8,579,247 | $ 14,281,037 | $ 22,860,283 |
| LFA 25 | $ 6,692,957 | $ 6,025,351 | $ 12,718,308 |
| | $ 41,721,390 | $ 44,570,368 | $ 86,291,749 |
| | | | |
| Average price | | | $ 3.00 |

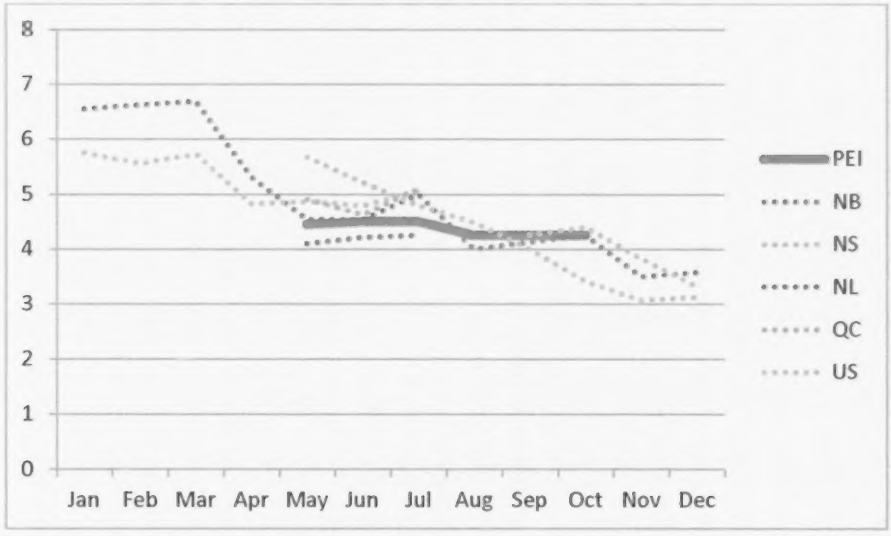
*Source: Compiled from information supplied by Department of Fisheries, Aquaculture and Rural Development*

Figure 23: US and Euro Exchange Rate in Canadian Dollars, 2002-2013

| Year | US Exchange Rate | Euro Exchange Rate |
|---|---|---|
| 2002 | 1.5704 | 1.4832 |
| 2003 | 1.4015 | 1.5826 |
| 2004 | 1.3015 | 1.6169 |
| 2005 | 1.2116 | 1.5090 |
| 2006 | 1.1341 | 1.4237 |
| 2007 | 1.0748 | 1.4691 |
| 2008 | 1.0660 | 1.5603 |
| 2009 | 1.1420 | 1.5855 |
| 2010 | 1.0299 | 1.3661 |
| 2011 | 0.9891 | 1.3767 |
| 2012 | 0.9996 | 1.2850 |
| 2013 | 1.0236 | 1.3485 |

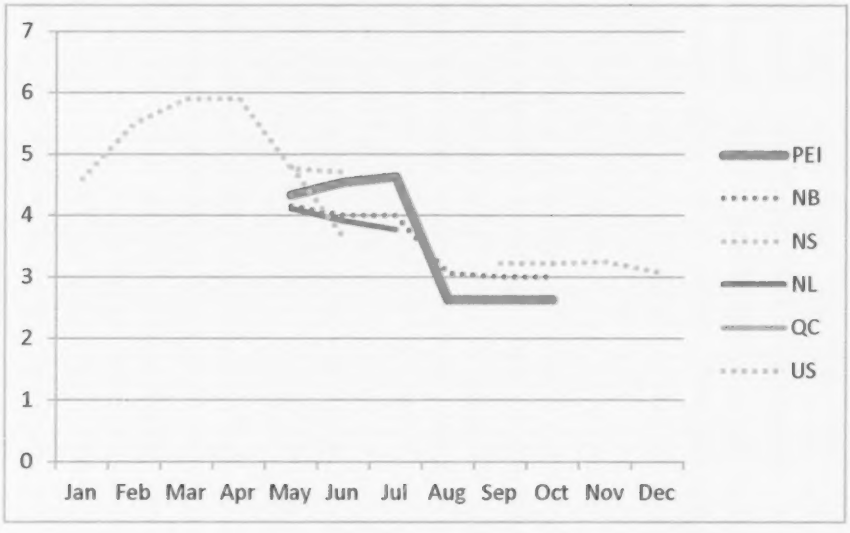
*Source: Bank of Canada Annual Average Exchange Rates 2002-2012, Monthly Average Exchange Rates January 2013 to September 2013*

Figure 24: Average Monthly Shore Price by Location, 2008




*Source: Compiled from Weekly Prices by Type, Region and Year, Department of Fisheries, Aquaculture and Rural Development.*

Figure 25: Average Monthly Shore Price by Location, 2012




*Source: Compiled from Weekly Prices by Type, Region and Year, Department of Fisheries, Aquaculture and Rural Development.*

Figure 26: Minimum Carapace Sizes, Canada, 2013

| Region | LFA | Minimum Carapace Size |
|---|---|---|
| Gulf | 23C, 23D, 24, 25 and 26A1 | 72 mm |
| | 26A2 | 73 mm |
| | 23A and 23B | 75 mm |
| | 26A3 | 76 mm |
| | 26B South | 79 mm |
| | 26B North | 81 mm |
| Maritimes | 27 | 81 mm |
| | 29, 30, 31A, 31B, 33, 34, 35, 36, 37, 38, 38B, and 41 | 82.5 mm |
| | 28 | 84 mm |
| NL | 3, 4A, 4B, 5, 6, 7, 8, 9, 10, 11, 12, 13A, 13B, 14A, 14B, and 14C | 82.5 mm |
| Quebec | 15, 16, 20A, 20B, 21A, and 21B | 82 mm |
| | 17A, 17B, 18B, 18C, 18D, 18G, 18H, 18I, 19A2, 19A3, 19B, 19C1, 19C2, and 22 | 83 mm |

*Source: Compiled from Department of Fisheries and Oceans Canada, Lobster – Integrated Fisheries Management Plan Summary Table (2013)*

Figure 27: Canadian Exports of Live Product, Top 10 Countries, 2008 to 2012

| Country | 2008 | 2009 | 2010 | 2011 | 2012 | 5 yr avg. of Total |
|---|---|---|---|---|---|---|
| United States | $278,915,490 | $286,710,498 | $251,480,200 | $267,776,225 | $275,518,937 | 72% |
| China | $1,373,523 | $2,778,561 | $8,429,875 | $24,077,547 | $35,090,231 | 4% |
| Belgium | $16,643,117 | $17,794,308 | $18,418,267 | $20,591,758 | $16,649,902 | 5% |
| Hong Kong | $5,197,203 | $6,787,406 | $13,236,573 | $14,715,029 | $15,827,783 | 3% |
| Japan | $9,789,809 | $7,431,660 | $9,707,155 | $12,335,422 | $13,762,832 | 3% |
| Korea, South | $11,268,589 | $12,067,645 | $10,813,635 | $12,786,823 | $12,351,438 | 3% |
| Netherlands | $7,067,231 | $6,608,324 | $6,772,336 | $6,066,491 | $7,171,867 | 2% |
| France (incl. Monaco, French Antilles) | $4,647,035 | $8,077,238 | $7,893,695 | $ 5,769,446 | $6,228,523 | 2% |
| United Kingdom | $4,492,009 | $5,217,179 | $3,625,756 | $4,367,502 | $4,120,079 | 1% |
| Germany | $9,581,402 | $4,960,880 | $1,797,722 | $3,318,570 | $2,944,459 | 1% |
| Sub-total | $348,975,408 | $358,433,699 | $332,175,214 | $371,804,813 | $389,666,051 | 95% |
| Others | $ 21,314,972 | $ 21,262,037 | $14,876,759 | $15,920,404 | $13,498,861 | 5% |
| Total All Countries | $ 370,290,380 | $379,695,736 | $347,051,973 | $387,725,217 | $403,164,912 | 100% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*

Figure 28: Live Export Sales Percentage by Value of Total Export Sales, 2008-2012

| | 2008 | 2009 | 2010 | 2011 | 2012 |
|---|---|---|---|---|---|
| PEI | 6% | 10% | 9% | 11% | 9% |
| NB | 16% | 18% | 13% | 12% | 15% |
| NS | 83% | 87% | 82% | 84% | 82% |
| NL | 51% | 30% | 11% | 22% | 6% |
| QC | 16% | 12% | 9% | 7% | 6% |

*Source: Compiled from information supplied by Statistics Canada – International Trade Division*